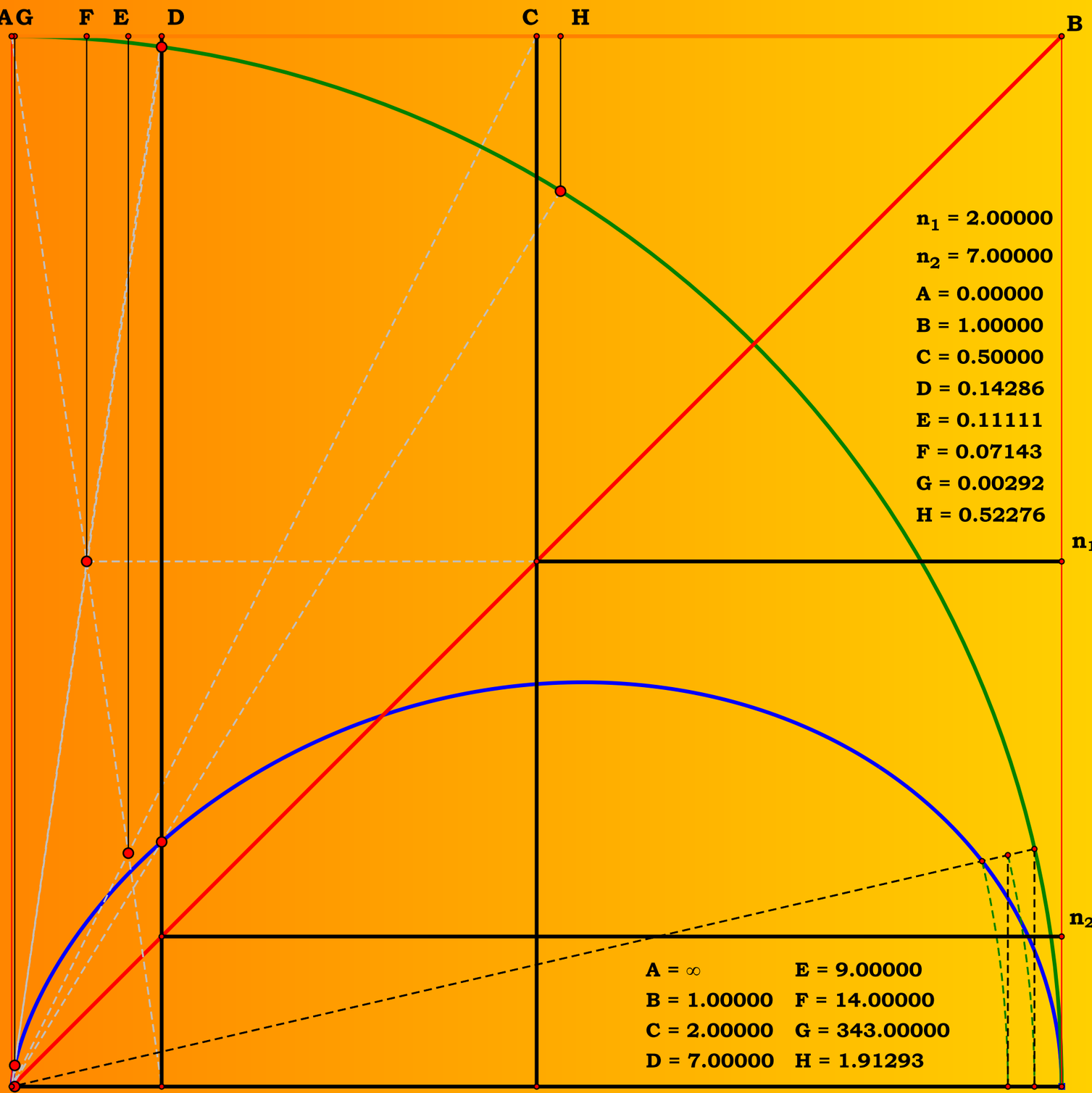


The One

3 Observatory Appendix

John Clark

3OBT1R0

Given. $A := 1.79312$

$$n_1 := \frac{1}{A}$$

Descriptions.

$$bn := \sqrt{A^2 + 1} \qquad be := \frac{A}{bn} \qquad eh := \frac{be}{bn}$$

$$ce := \frac{1}{bn} \qquad ch := \sqrt{ce^2 - eh^2} \qquad bg := ch$$

$$B := \frac{bg}{1 - eh} \qquad B = 0.412855$$

Definitions.

$$B - \frac{1}{A^2 - A + 1} = 0$$

$$B - \frac{n_1^2}{n_1^2 - n_1 + 1} = 0$$

Unit = 1.00000

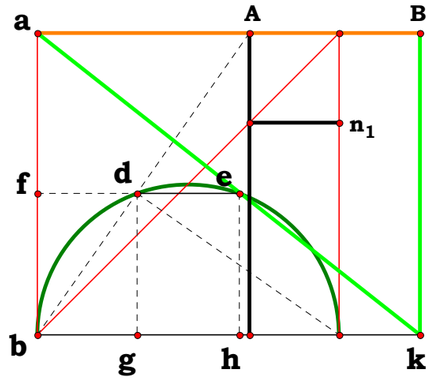
A = 0.70117

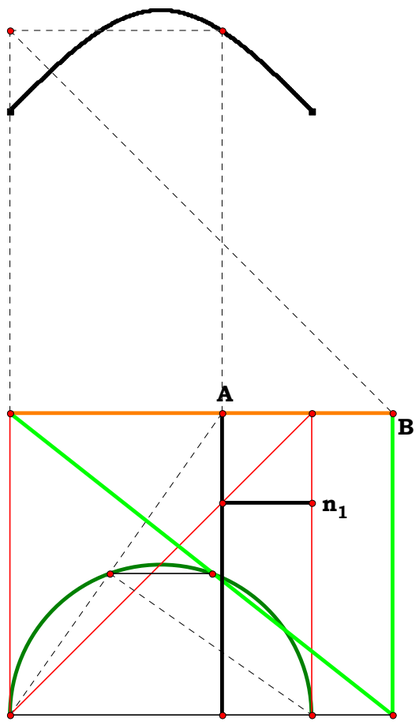
B = 1.26507

n_1 = 1.42619

$\frac{1}{(A^2\text{-}A)+1}$-B = 0.00000

$\frac{n_1^2}{(n_1^2\text{-}n_1)+1}$-B = 0.00000





Unit = 1.00000

A = 0.70117

B = 1.26507

n_1 = 1.42619

$\frac{1}{(A^2\text{-}A)+1}$-B = 0.00000

$\frac{n_1^2}{(n_1^2\text{-}n_1)+1}$-B = 0.00000

3OBT1R1

Given. $A := .50890$

$n_1 := \frac{1}{A}$

Descriptions.

$be := \frac{A^2}{A^2 - \sqrt{A^2} + 1}$ $\quad ce := 1 - be$

$de := \sqrt{be \cdot ce}$ $\quad bf := \frac{be}{1 - de}$ $\quad B := bf$

$B = 0.658227$

Definitions.

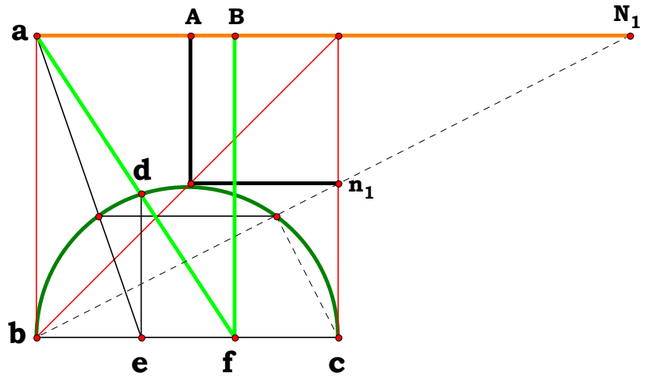
$$B - \frac{A^2}{A^2 - A - A \cdot \sqrt{1 - A} + 1} = 0$$

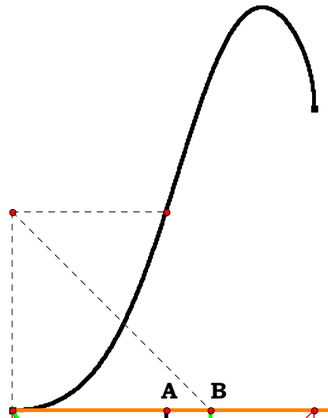
$$B - \frac{1}{\left(n_1^2 - n_1 - \sqrt{n_1^2 - n_1} + 1\right)} = 0$$

Unit = 1.00000
A = 0.50890
B = 0.65821
n_1 = 1.96504

$\frac{A^2}{(A^2\text{-}A\text{-}A\cdot\sqrt{1\text{-}A})+1}$ -B = 0.00000

$\frac{1}{(n_1{}^2\text{-}n_1\text{-}\sqrt{n_1{}^2\text{-}n_1})+1}$ -B = 0.00000

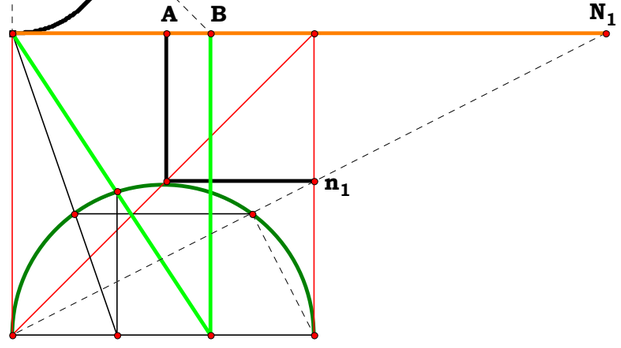




Unit = 1.00000
A = 0.50890
B = 0.65821
n_1 = 1.96504

$\frac{A^2}{(A^2\text{-}A\text{-}A\cdot\sqrt{1\text{-}A})+1}$ -B = 0.00000

$\frac{1}{(n_1{}^2\text{-}n_1\text{-}\sqrt{n_1{}^2\text{-}n_1})+1}$ -B = 0.00000



3OBT1R2

Given. $A := .82238$

$$n_1 := \frac{1}{A}$$

Descriptions.

$$bA := \sqrt{1 + A^2} \qquad be := \frac{A}{bA} \qquad bf := \frac{A \cdot be}{bA}$$

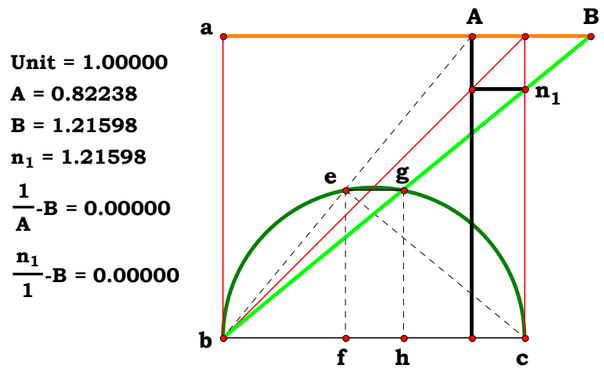
$$bh := 1 - bf \qquad bd := \frac{be}{bA}$$

$$B := \frac{bh}{bd} \qquad B = 1.215983$$

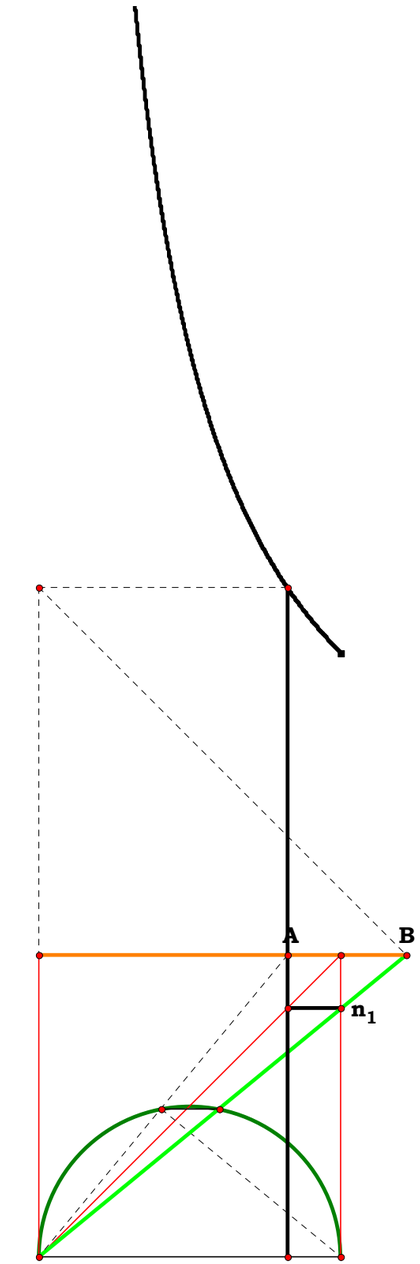
Definitions.

$$B - \frac{1}{A} = 0$$

$$B - n_1 = 0$$



Unit = 1.00000
A = 0.82238
B = 1.21598
n_1 = 1.21598
$\frac{1}{A}$-B = 0.00000
$\frac{n_1}{1}$-B = 0.00000



Unit = 1.00000
A = 0.82238
B = 1.21598
n_1 = 1.21598
$\frac{1}{A}$-B = 0.00000
$\frac{n_1}{1}$-B = 0.00000

3OBT1R3

Given. $A := .54651$

$$n_1 := \frac{1}{A}$$

Descriptions.

$$bA := \sqrt{1 + A^2} \qquad bd := \frac{A}{bA} \qquad bh := \frac{A \cdot bd}{bA}$$

$$bg := \frac{bh}{A} \qquad bf := \frac{bh}{1 - bg}$$

$$ef := \sqrt{bf \cdot (1 - bf)} \qquad B := \frac{bf}{ef}$$

$B = 0.811548$

Definitions.

$$B - \frac{A}{\sqrt{(1 - A)}} = 0$$

$$B - \frac{1}{\sqrt{n_1^2 - n_1}} = 0$$

Unit = 1.00000

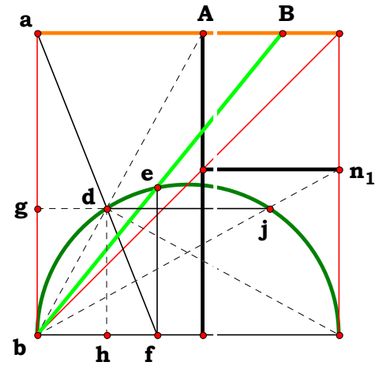
A = 0.54651

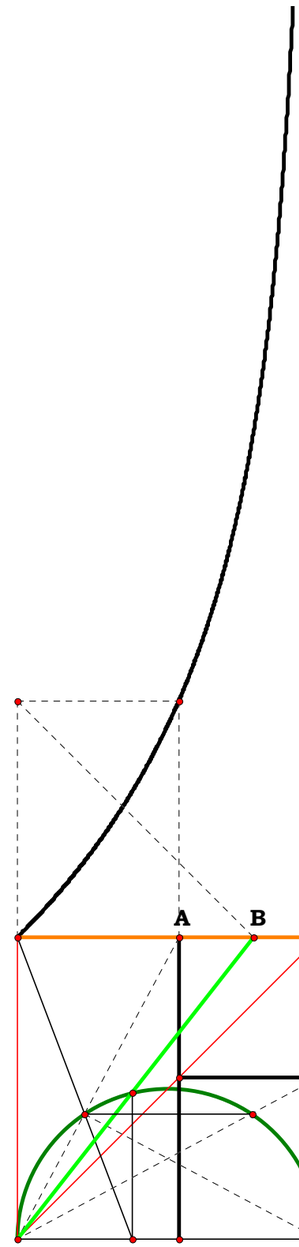
B = 0.81156

n_1 = 1.82978

$\frac{A}{\sqrt{1-A}}$-B = 0.00000

$\frac{1}{\sqrt{n_1^2-n_1}}$-B = 0.00000





Unit = 1.00000

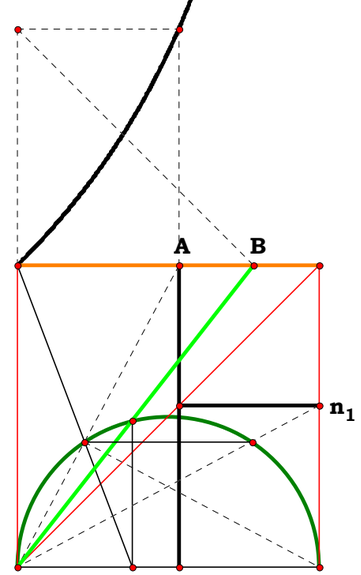
A = 0.53397

B = 0.78220

n_1 = 1.87275

$\frac{A}{\sqrt{1-A}}$ = 0.78220

$\frac{1}{\sqrt{n_1^2-n_1}}$ = 0.78220



3OBT1R4

Given. $A := .38768$

$$n_1 := \frac{1}{A}$$

Descriptions.

$$bd := \frac{A^2}{A^2 - \sqrt{1 - \sqrt{A^2}} \cdot \sqrt{A^2} - \sqrt{A^2} + 1}$$

$$cd := 1 - bd \qquad de := \sqrt{bd \cdot cd}$$

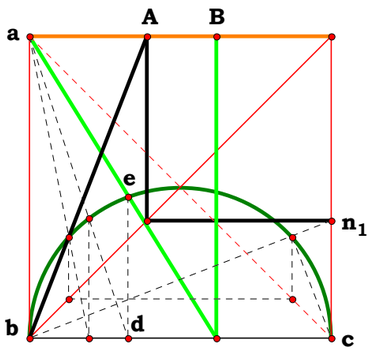
$$bf := \frac{bd}{1 - de} \qquad B := bf$$

$B = 0.61656$

Definitions.

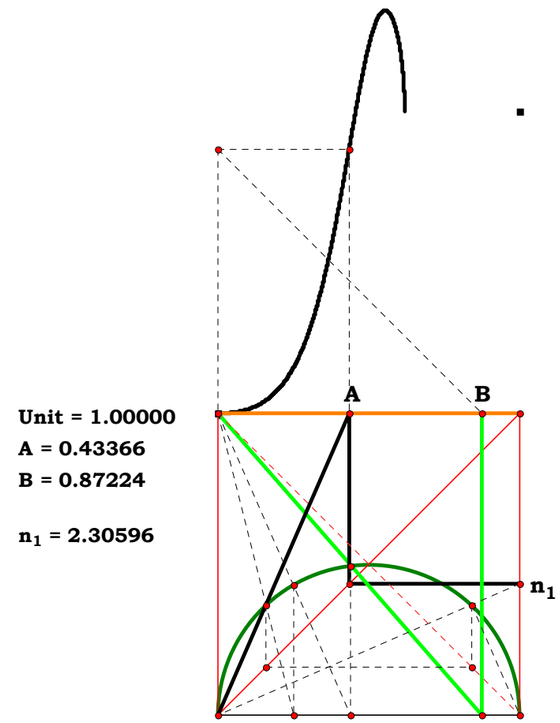
$$B - \frac{A^2}{A^2 - A \cdot \sqrt{1 - A \cdot \sqrt{1 - A}} - A - A - A \cdot \sqrt{1 - A} + 1} = 0$$

$$B - \frac{1}{n_1^2 - n_1 - \sqrt{n_1^2 - n_1 - \sqrt{n_1^2 - n_1}} - \sqrt{n_1^2 - n_1} + 1} = 0$$



$$\frac{A^2}{(A^2+1)-A-A\cdot\sqrt{1-A}-A\cdot\sqrt{1-A\cdot\sqrt{1-A}}-A} - B = 0.00000$$

$$\frac{1}{((n_1^2-n_1)+1)-\sqrt{n_1^2-n_1}-\sqrt{n_1^2-n_1-\sqrt{n_1^2-n_1}}} - B = 0.00000$$



$$\frac{A^2}{(A^2+1)-A-A\cdot\sqrt{1-A}-A\cdot\sqrt{1-A\cdot\sqrt{1-A}}-A} - B = 0.00000$$

$$\frac{1}{((n_1^2-n_1)+1)-\sqrt{n_1^2-n_1}-\sqrt{n_1^2-n_1-\sqrt{n_1^2-n_1}}} - B = 0.00000$$

3OBT1R5

Given. $A := .63429$

$$n_1 := \frac{1}{A}$$

Descriptions.

$$bA := \sqrt{A^2 + 1} \qquad bd := \frac{A}{bA}$$

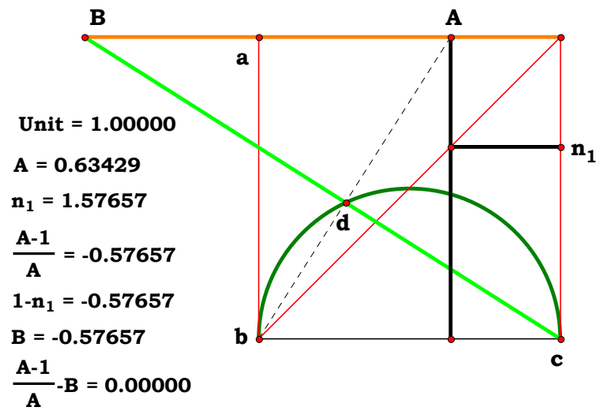
$$dA := bA - bd \qquad AB := \frac{bA \cdot dA}{A}$$

$$B := A - AB \qquad B = -0.576566$$

Definitions.

$$B - \frac{A - 1}{A} = 0$$

$$B - \left(1 - n_1\right) = 0$$



Unit = 1.00000

A = 0.63429

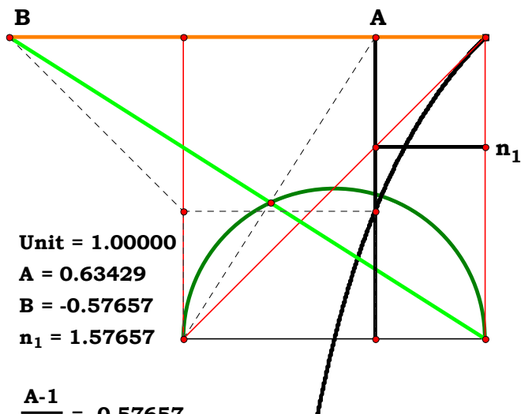
n_1 = 1.57657

$\frac{A-1}{A}$ = -0.57657

1-n_1 = -0.57657

B = -0.57657

$\frac{A-1}{A}$-B = 0.00000



Unit = 1.00000

A = 0.63429

B = -0.57657

n_1 = 1.57657

$\frac{A-1}{A}$ = -0.57657

$\frac{A-1}{A}$-B = 0.00000

3OBT1R6

Given. $A := .86000$

$$n_1 := \frac{1}{A}$$

Descriptions.

$$bd := \frac{A}{\left(A^2+1\right)^{\frac{1}{2}}} \qquad bn := \sqrt{A^2+1}$$

$$B := \frac{A \cdot bd}{bn} \qquad B = 0.425155$$

Definitions.

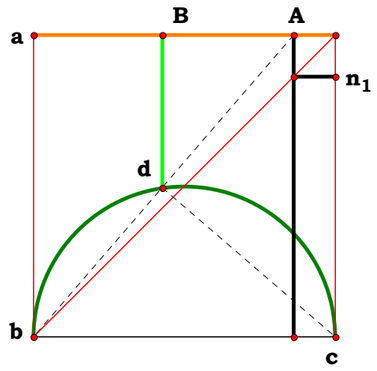
$$B - \frac{A^2}{A^2+1} = 0$$

$$B - \frac{1}{n_1{}^2+1} = 0$$

Unit = 1.00000
A = 0.86000
B = 0.42516
n_1 = 1.16279

$\frac{A^2}{A^2+1}$-B = 0.00000

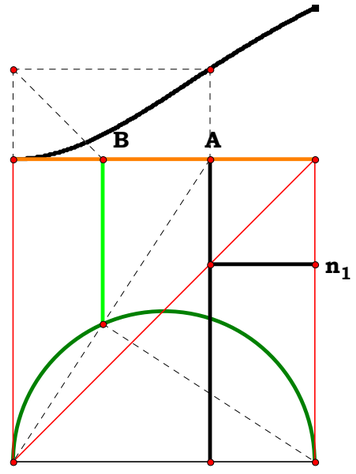
$\frac{1}{n_1{}^2+1}$-B = 0.00000



Unit = 1.00000
A = 0.65101
B = 0.29766
n_1 = 1.53608

$\frac{A^2}{A^2+1}$-B = 0.00000

$\frac{1}{n_1{}^2+1}$-B = 0.00000



3OBT1R7

Given. $A := .36678$ $B := .56682$

$$n_1 := \frac{1}{A} \quad n_2 := \frac{1}{B}$$

Descriptions.

$$bA := \sqrt{1 + A^2} \quad bc := \frac{A}{bA} \quad cd := \frac{bc}{bA}$$

$$af := \frac{B}{cd} \quad bf := \sqrt{1 + af^2} \quad be := \frac{af}{bf}$$

$$C := af \cdot \frac{be}{bf} \qquad C = 0.754543$$

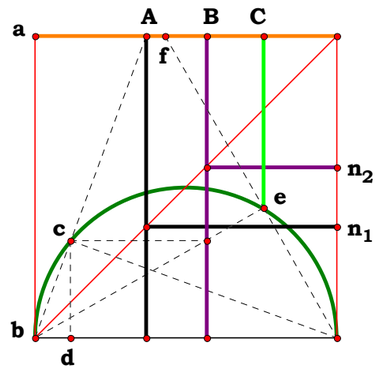
Definitions.

$$C - \frac{B^2 \cdot \left(A^2 + 1\right)^2}{A^4 \cdot B^2 + 2 \cdot A^2 \cdot B^2 + A^2 + B^2} = 0$$

$$C - \frac{\left({n_1}^2 + 1\right)^2}{{n_1}^4 + {n_1}^2 \cdot {n_2}^2 + \left(2 \cdot {n_1}^2 + 1\right)} = 0$$

Unit = 1.00000
A = 0.36678
B = 0.56682
C = 0.75454

n_1 = 2.72642
n_2 = 1.76424

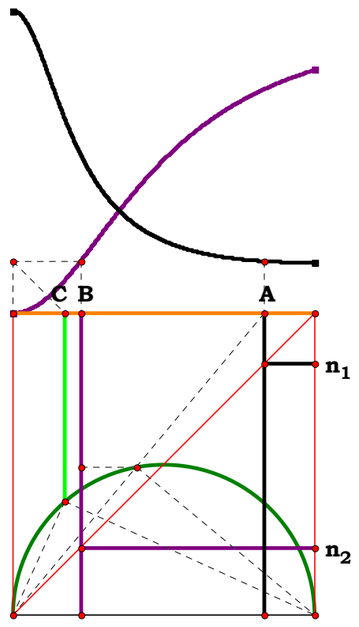


$$\frac{B^2 \cdot (A^2+1)^2}{A^4 \cdot B^2 + 2 \cdot A^2 \cdot B^2 + A^2 + B^2} - C = 0.00000$$

$$\frac{(n_1{}^2+1)^2}{n_1{}^4 + n_1{}^2 \cdot n_2{}^2 + 2 \cdot n_1{}^2 + 1} - C = 0.00000$$

Unit = 1.00000
A = 0.83074
B = 0.22407
C = 0.17206

n_1 = 1.20374
n_2 = 4.46290



$$\frac{B^2 \cdot (A^2+1)^2}{A^4 \cdot B^2 + 2 \cdot A^2 \cdot B^2 + A^2 + B^2} - C = 0.00000$$

$$\frac{(n_1{}^2+1)^2}{n_1{}^4 + n_1{}^2 \cdot n_2{}^2 + 2 \cdot n_1{}^2 + 1} - C = 0.00000$$

3OBT1R8

Given. $A := .49218$

$$n_1 := \frac{1}{A}$$

Descriptions.

$$be := \frac{A^2}{A^2 - \sqrt{1 - \sqrt{A^2}} \cdot \sqrt{A^2} - \sqrt{A^2} + 1} \qquad bg := 1 - be$$

$$de := \frac{\sqrt{A^2} \cdot \sqrt{1 - \sqrt{A^2} - \sqrt{1 - \sqrt{A^2}} \cdot \sqrt{A^2}}}{A^2 - \sqrt{1 - \sqrt{A^2}} \cdot \sqrt{A^2} - \sqrt{A^2} + 1} \qquad B := \frac{bg}{de}$$

$B = 0.805274$

Definitions.

$$B - \frac{\sqrt{1 - A - A \cdot \sqrt{1 - A}}}{A} = 0$$

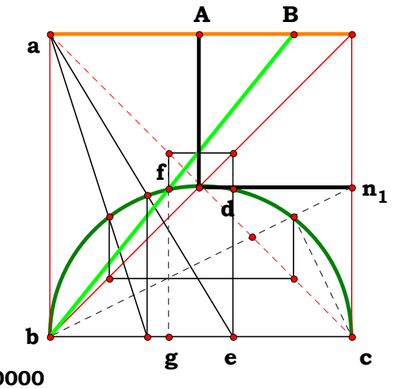
$$B - \sqrt{n_1^2 - n_1 - \sqrt{n_1^2 - n_1}} = 0$$

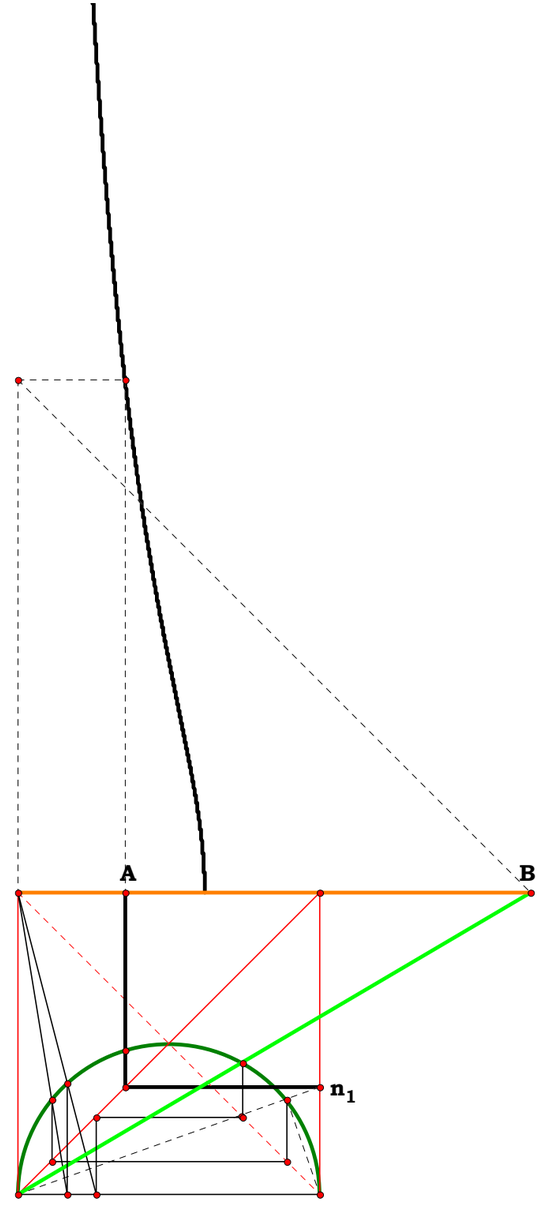
Unit = 1.00000
A = 0.49218
B = 0.80530

$n_1 = 2.03179$

$\frac{\sqrt{1-A-A\cdot\sqrt{1-A}}}{A} - B = 0.00000$

$\sqrt{n_1^2 - n_1 - \sqrt{n_1^2 - n_1}} - B = 0.00000$





Unit = 1.00000
A = 0.35424
B = 1.69633

$n_1 = 2.82293$

$\frac{\sqrt{1-A-A\cdot\sqrt{1-A}}}{A} - B = 0.00000$

$\sqrt{n_1^2 - n_1 - \sqrt{n_1^2 - n_1}} - B = 0.00000$

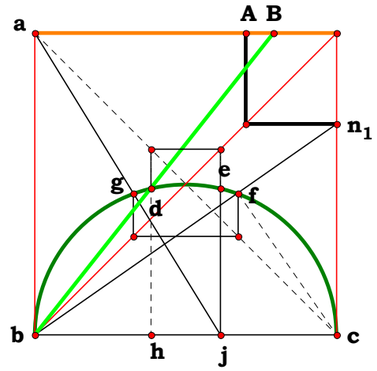
3OBT1R9

Unit = 1.00000
A = 0.69699
B = 0.78978

n_1 = 1.43475

$\frac{\sqrt{1-A}}{A}-B$ = 0.00000

$\sqrt{n_1^2-n_1}-B$ = 0.00000



Given. $A := .69699$

$n_1 := \frac{1}{A}$

Descriptions.

$bj := \frac{A^2}{A^2 - \sqrt{A^2} + 1}$ $bh := 1 - bj$

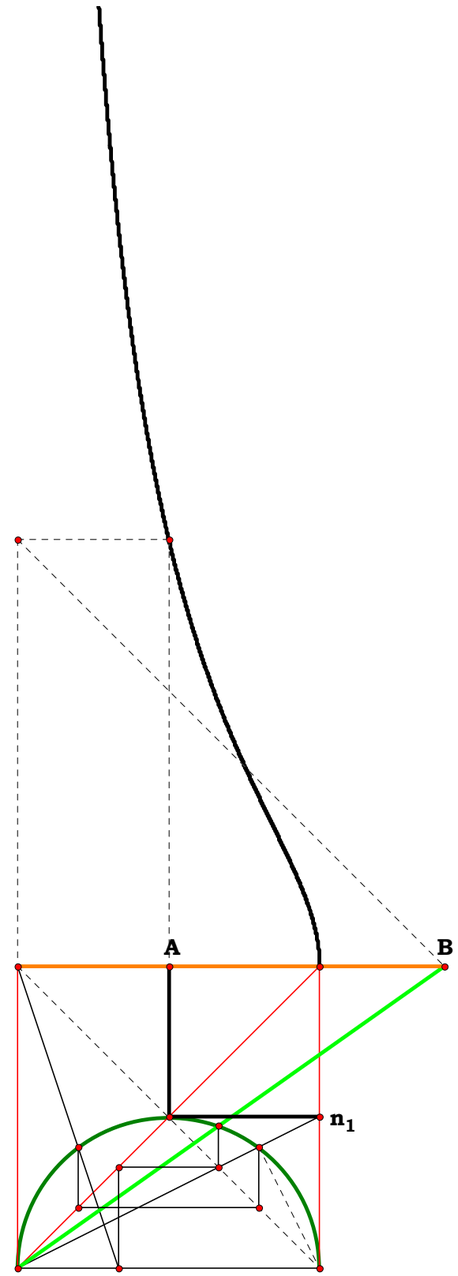
$ej := \sqrt{bj \cdot (1 - bj)}$ $B := \frac{bh}{ej}$

$B = 0.789772$

Definitions.

$B - \frac{\sqrt{1 - A}}{A} = 0$

$B - \sqrt{n_1^2 - n_1} = 0$



Unit = 1.00000
A = 0.50054
B = 1.41194

n_1 = 1.99786

$\frac{\sqrt{1-A}}{A}-B$ = 0.00000

$\sqrt{n_1^2-n_1}-B$ = 0.00000

3OBT1R10

Given. $A := .86000$ $B := .30349$

$n_1 := \frac{1}{A}$ $n_2 := \frac{1}{B}$

Descriptions.

$bA := \sqrt{1 + A^2}$ $bc := \frac{A}{bA}$

$dB := 1 - \frac{bc}{bA}$ $C := \frac{B}{dB}$

$C = 0.600217$

Definitions.

$$C - \frac{B \cdot \left(A^2 + 1\right)}{A^2 - A + 1} = 0$$

$$C - \frac{{n_1}^2 + 1}{n_2 \cdot \left({n_1}^2 - n_1 + 1\right)} = 0$$

Unit = 1.00000

A = 0.86000

B = 0.30349

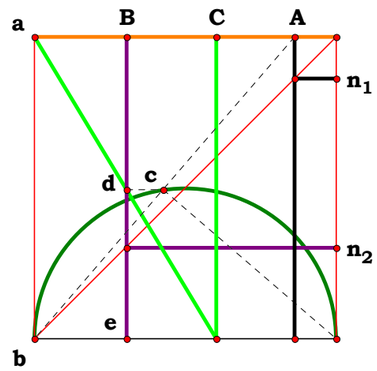
C = 0.60021

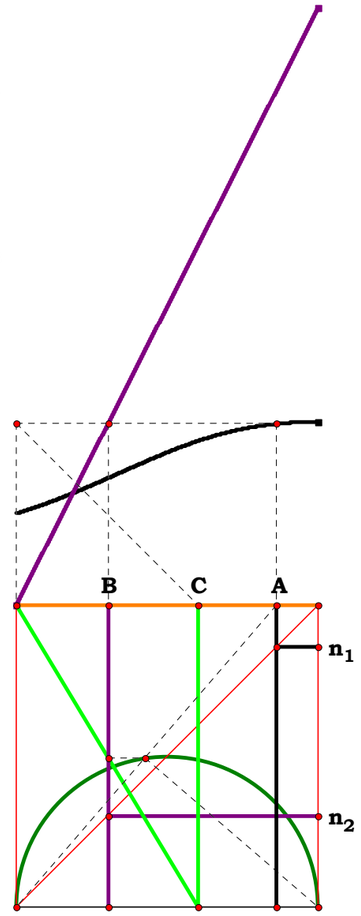
n_1 = 1.16279

n_2 = 3.29504

$\frac{B\cdot(A^2+1)}{(A^2-A)+1}$-C = 0.00000

$\frac{{n_1}^2+1}{n_2\cdot(({n_1}^2-n_1)+1)}$-C = 0.00000





Unit = 1.00000

A = 0.86000

B = 0.30349

C = 0.60021

n_1 = 1.16279

n_2 = 3.29504

$\frac{B\cdot(A^2+1)}{(A^2-A)+1}$-C = 0.00000

$\frac{{n_1}^2+1}{n_2\cdot(({n_1}^2-n_1)+1)}$-C = 0.00000

3OBT1R11

Given. $A := 2.47482$ $B := 1.42689$

$$n_1 := \frac{1}{A} \quad n_2 := \frac{1}{B}$$

Descriptions.

$$bA := \sqrt{1 + A^2} \qquad bc := \frac{A}{bA}$$

$$de := \frac{bc}{bA} \qquad C := \frac{B}{de}$$

$C = 4.107859$

Definitions.

$$C - \frac{B \cdot \left(A^2 + 1\right)}{A} = 0$$

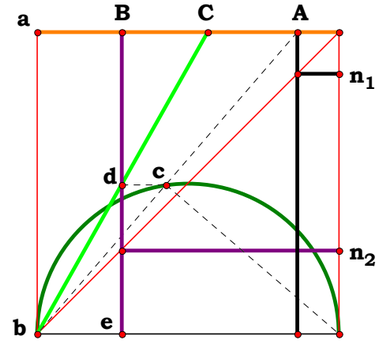
$$C - \frac{{n_1}^2 + 1}{n_1 \cdot n_2} = 0$$

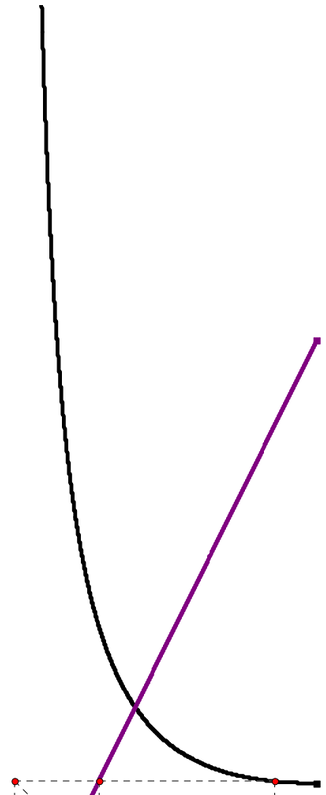
Unit = 1.00000
A = 0.86000
B = 0.27841
C = 0.56316

$n_1 = 1.16279$
$n_2 = 3.59186$

$\frac{B \cdot (A^2+1)}{A} - C = 0.00000$

$\frac{{n_1}^2+1}{n_1 \cdot n_2} - C = 0.00000$



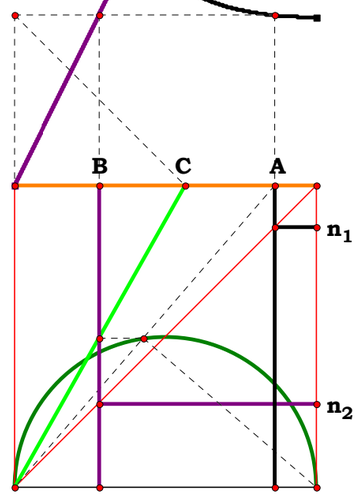


Unit = 1.00000
A = 0.86000
B = 0.27841
C = 0.56316

$n_1 = 1.16279$
$n_2 = 3.59186$

$\frac{B \cdot (A^2+1)}{A} - C = 0.00000$

$\frac{{n_1}^2+1}{n_1 \cdot n_2} - C = 0.00000$



3OBT1R12

Given. $A := .53815$ $B := .29513$

$$n_1 := \frac{1}{A} \quad n_2 := \frac{1}{B}$$

Descriptions.

$$bA := \sqrt{1 + A^2} \quad bd := \frac{A}{bA} \quad bc := \frac{bd}{bA}$$

$$ce := B \cdot (1 - bc) \quad C := \frac{ce}{bc}$$

$C = 0.41211$

Definitions.

$$C - \frac{B \cdot \left(A^2 - A + 1\right)}{A} = 0$$

$$C - \frac{{n_1}^2 - n_1 + 1}{n_1 \cdot n_2} = 0$$

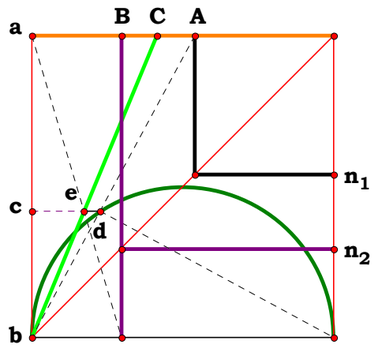
Unit = 1.00000

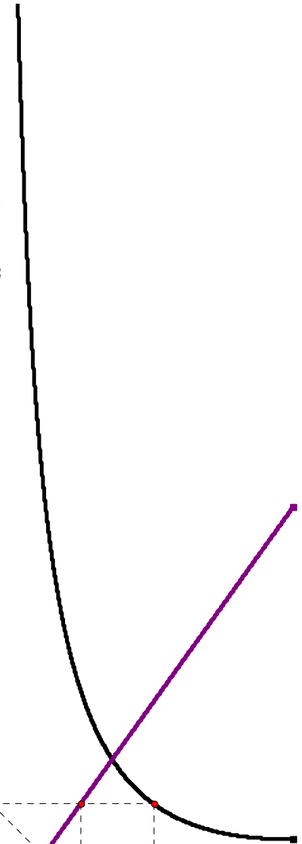
A = 0.53815
B = 0.29513
C = 0.41210

n_1 = 1.85820
n_2 = 3.38837

$\frac{B\cdot((A^2-A)+1)}{A}$-C = 0.00000

$\frac{(n_1^2-n_1)+1}{n_1\cdot n_2}$-C = 0.00000





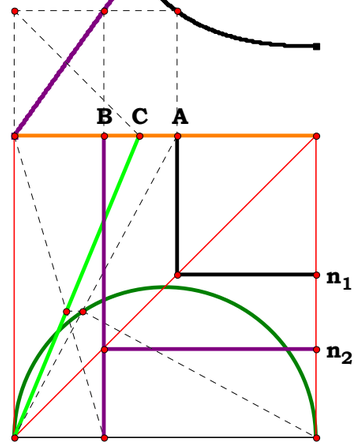
Unit = 1.00000

A = 0.53815
B = 0.29513
C = 0.41210

n_1 = 1.85820
n_2 = 3.38837

$\frac{B\cdot((A^2-A)+1)}{A}$-C = 0.00000

$\frac{(n_1^2-n_1)+1}{n_1\cdot n_2}$-C = 0.00000



3OBT1R13

Given.

$A := .19123$

$n_1 := \frac{1}{A}$

Descriptions.

$bd := A \qquad ed := \sqrt{bd \cdot (1 - bd)}$

$bj := \frac{bd}{1 - ed} \qquad cj := 1 - bj$

$hj := \sqrt{bj \cdot cj} \qquad bm := \frac{bj}{1 - hj}$

$cm := 1 - bm \qquad km := \sqrt{bm \cdot cm}$

$bg := cm \qquad fg := km \qquad B := \frac{bg}{fg}$

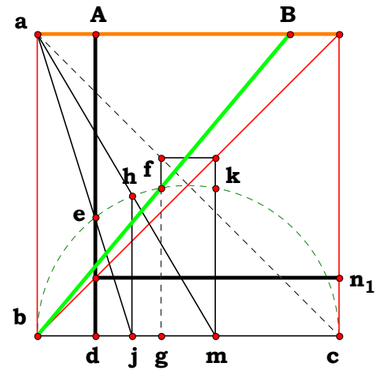
$B = 0.835909$

Definitions.

$$B - \frac{\sqrt{1 - \sqrt{A \cdot \left[1 - \sqrt{A \cdot (1 - A)} - A\right]} - \sqrt{A \cdot (1 - A)} - A}}{\sqrt{A}} = 0$$

$$B - \sqrt{n_1 - \sqrt{n_1 - \sqrt{n_1 - 1} - 1} - \sqrt{n_1 - 1} - 1} = 0$$

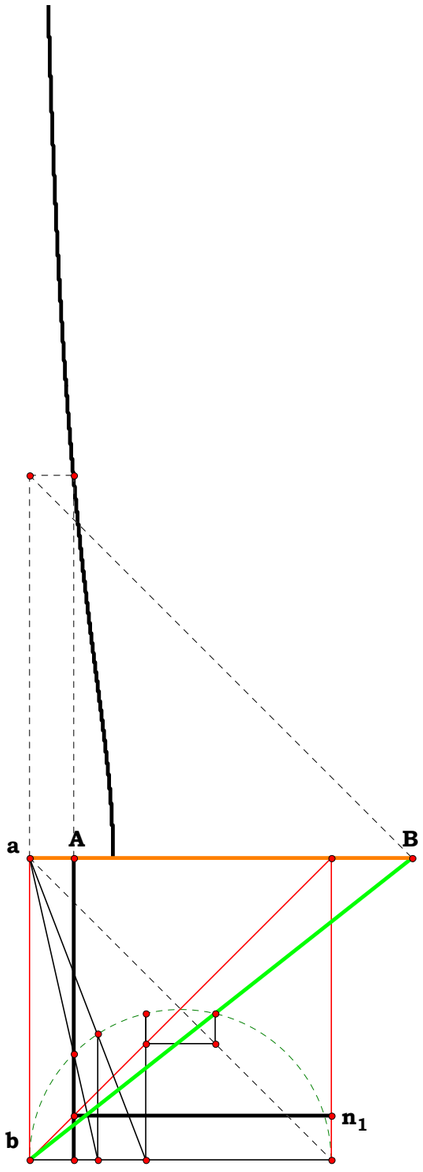
Unit = 1.00000
A = 0.19123
B = 0.83593



$n_1 = 5.22936$

$$\frac{\sqrt{1-A-\sqrt{A\cdot(1-A)}-\sqrt{A\cdot\left(1-\sqrt{A\cdot(1-A)}-A\right)}}}{\sqrt{A}} - B = 0.00000$$

$$\sqrt{n_1-1-\sqrt{n_1-1}-\sqrt{n_1-1-\sqrt{n_1-1}}} - B = 0.00000$$



Unit = 1.00000
A = 0.14525
B = 1.26454

$n_1 = 6.88470$

$$\frac{\sqrt{1-A-\sqrt{A\cdot(1-A)}-\sqrt{A\cdot\left(1-\sqrt{A\cdot(1-A)}-A\right)}}}{\sqrt{A}} - B = 0.00000$$

$$\sqrt{n_1-1-\sqrt{n_1-1}-\sqrt{n_1-1-\sqrt{n_1-1}}} - B = 0.00000$$

3OBT1R14

Given. $A := .52561$

$n_1 := \frac{1}{A}$

Descriptions.

$bf := \frac{A^2}{A^2+1}$ $bg := 1 - bf$

$B := bg$

$B = 0.783536$

Definitions.

$B - \frac{1}{A^2+1} = 0$

$B - \frac{n_1^2}{n_1^2+1} = 0$

Unit = 1.00000

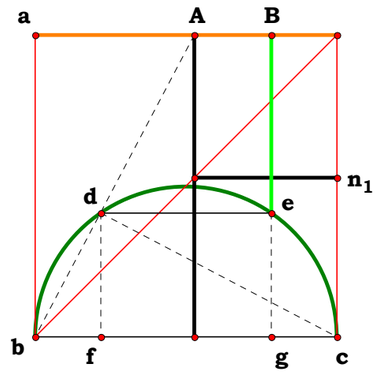
A = 0.52561

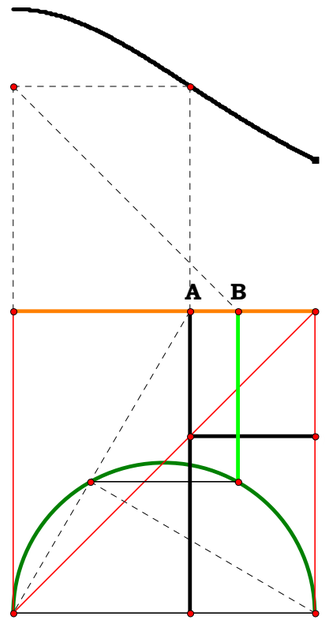
B = 0.78353

n_1 = 1.90254

$\frac{1}{A^2+1}$-B = 0.00000

$\frac{n_1^2}{n_1^2+1}$-B = 0.00000





Unit = 1.00000

A = 0.58413

B = 0.74560

n_1 = 1.71194

$\frac{1}{A^2+1}$-B = 0.00000

$\frac{n_1^2}{n_1^2+1}$-B = 0.00000

3OBT1R15

Given. $A := .29572$

$$n_1 := \frac{1}{A}$$

Descriptions.

$bf := A \qquad bg := 1 - bf$

$$eg := \sqrt{bg \cdot bf} \qquad B := \frac{bg}{eg}$$

$B = 1.543236$

Definitions.

$$B - \frac{1 - A}{\sqrt{A - A^2}} = 0$$

$$B - \frac{\sqrt{n_1^2 \cdot (n_1 - 1)}}{n_1} = 0$$

Unit = 1.00000

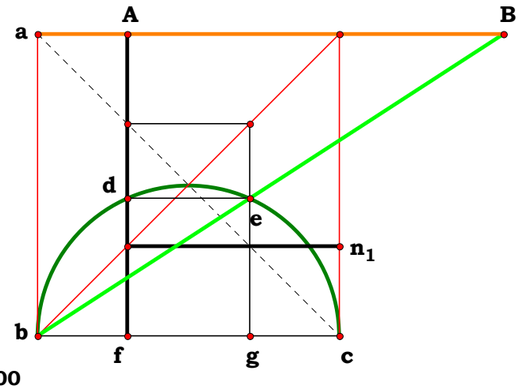
A = 0.29572

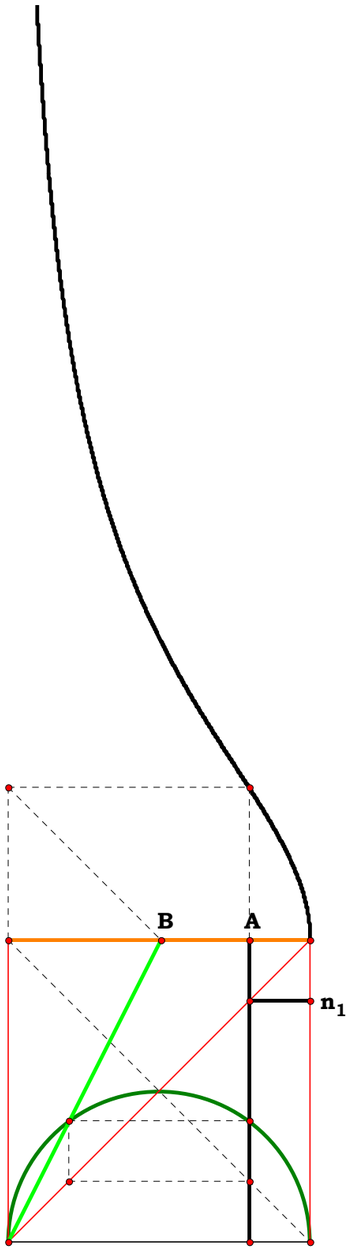
B = 1.54322

$n_1 = 3.38154$

$\frac{1-A}{\sqrt{A-A^2}} - B = 0.00000$

$\frac{\sqrt{n_1^2 \cdot (n_1-1)}}{n_1} - B = 0.00000$





Unit = 1.00000

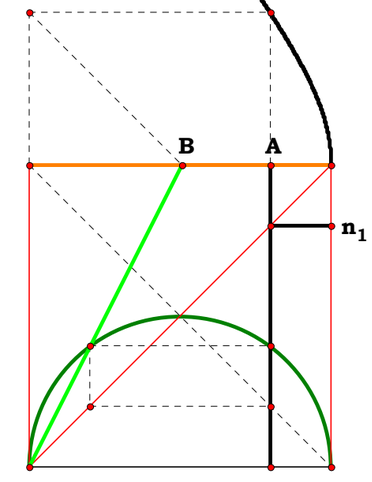
A = 0.79730

B = 0.50421

$n_1 = 1.25423$

$\frac{1-A}{\sqrt{A-A^2}} - B = 0.00000$

$\frac{\sqrt{n_1^2 \cdot (n_1-1)}}{n_1} - B = 0.00000$



3OBT2R0

Given.

$A := .80566 \qquad B := .74655$

$n_1 := \frac{1}{A} \qquad n_2 := \frac{1}{B}$

Descriptions.

$bA := \sqrt{1 + A^2} \qquad bf := \frac{A}{bA} \qquad fg := \frac{bf}{bA}$

$bk := \sqrt{fg^2 + B^2} \qquad bh := \frac{B}{bk} \qquad bj := \frac{B \cdot bh}{bk}$

$C := 1 - bj \qquad C = 0.299843$

Definitions.

$$C - \frac{A^2}{A^4 \cdot B^2 + 2 \cdot A^2 \cdot B^2 + A^2 + B^2} = 0$$

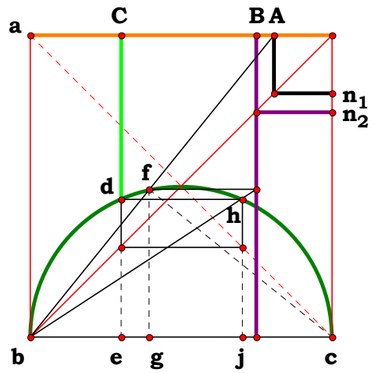
$$C - \frac{n_1^2 \cdot n_2^2}{n_1^4 + n_1^2 \cdot n_2^2 + 2 \cdot n_1^2 + 1} = 0$$

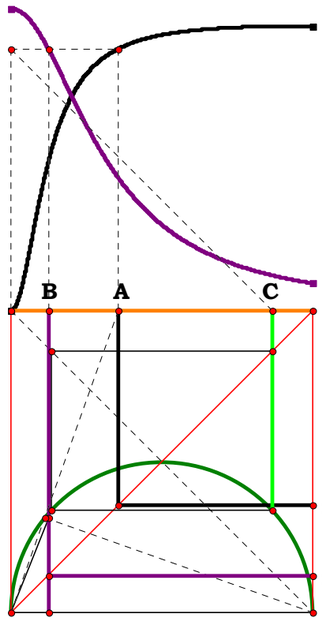
Unit = 1.00000
A = 0.80566
B = 0.74655
C = 0.29984

n_1 = 1.24121
n_2 = 1.33950

$\frac{A^2}{A^4 \cdot B^2 + 2 \cdot A^2 \cdot B^2 + A^2 + B^2} - C = 0.00000$

$\frac{n_1^2 \cdot n_2^2}{n_1^4 + n_1^2 \cdot n_2^2 + 2 \cdot n_1^2 + 1} - C = 0.00000$





Unit = 1.00000
A = 0.35424
B = 0.12375
C = 0.86610

n_1 = 2.82293
n_2 = 8.08057

$\frac{A^2}{A^4 \cdot B^2 + 2 \cdot A^2 \cdot B^2 + A^2 + B^2} - C = 0.00000$

$\frac{n_1^2 \cdot n_2^2}{n_1^4 + n_1^2 \cdot n_2^2 + 2 \cdot n_1^2 + 1} - C = 0.00000$

3OBT2R1

Given.

$A := .33334 \qquad B := .52084$

$n_1 := \frac{1}{A} \qquad n_2 := \frac{1}{B}$

Descriptions.

$bA := \sqrt{A^2 + 1} \qquad bf := \frac{A}{bA} \qquad fh := \frac{bf}{bA}$

$bp := \frac{B}{1 - fh} \qquad bk := \frac{A \cdot bp}{A + bp}$

$C := (1 - bk) \qquad C = 0.769793$

Definitions.

$$C - \frac{(1 - B) \cdot \left(A^3 - A^2 + A\right) + B}{A^3 - (1 - B) \cdot A^2 + A + B} = 0$$

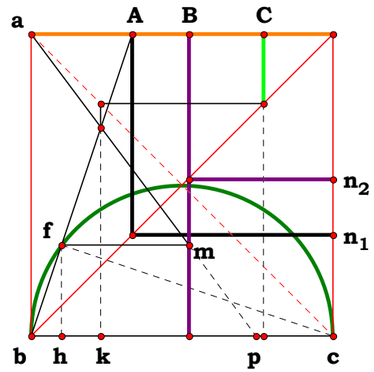
$$C - \frac{\left(n_1 + n_2\right) - 1 + n_1 \cdot \left(n_1 - 1\right) \cdot \left(n_1 + n_2\right)}{n_2 \cdot \left(n_1^2 - n_1 + 1\right) + n_1 \cdot \left(n_1^2 + 1\right)} = 0$$

Unit = 1.00000
A = 0.33334
B = 0.52084
C = 0.76979

n_1 = 2.99992
n_2 = 1.91998

$\frac{(1-B)\cdot((A^3-A^2)+A)+B}{(A^3-(1-B)\cdot A^2)+A+B}$-C = 0.00000

$\frac{((n_1+n_2)-1)+n_1\cdot(n_1-1)\cdot(n_1+n_2)}{n_2\cdot((n_1^2-n_1)+1)+n_1\cdot(n_1^2+1)}$-C = 0.00000

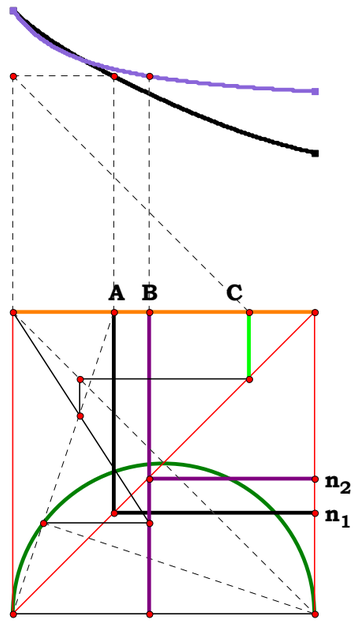


Unit = 1.00000
A = 0.33334
B = 0.44978
C = 0.78052

n_1 = 2.99992
n_2 = 2.22331

$\frac{(1-B)\cdot((A^3-A^2)+A)+B}{(A^3-(1-B)\cdot A^2)+A+B}$-C = 0.00000

$\frac{((n_1+n_2)-1)+n_1\cdot(n_1-1)\cdot(n_1+n_2)}{n_2\cdot((n_1^2-n_1)+1)+n_1\cdot(n_1^2+1)}$-C = 0.00000



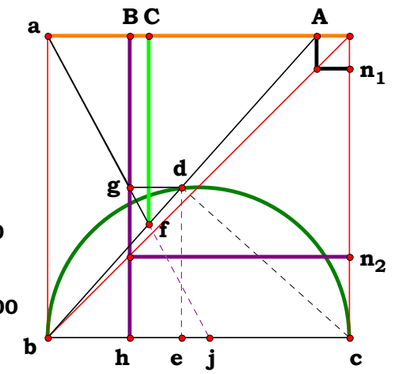
3OBT02R2

Unit = 1.00000
A = 0.88926
B = 0.27005
C = 0.33459

n_1 = 1.12453
n_2 = 3.70305

$$\frac{A\cdot B+A^3\cdot B}{((A+A^3)-A^2)+B+A^2\cdot B}-C = 0.00000$$

$$\frac{n_1{}^2+1}{(n_1{}^2+1)\cdot(n_1+n_2)-n_1\cdot n_2}-C = 0.00000$$



Given.

$A := .88926$ $B := .27005$

$n_1 := \frac{1}{A}$ $n_2 := \frac{1}{B}$

Descriptions.

$bA := \sqrt{1+A^2}$ $bd := \frac{A}{bA}$ $de := \frac{bd}{bA}$

$bj := \frac{B}{1-de}$ $C := \frac{A\cdot bj}{A+bj}$ $C = 0.334592$

Definitions.

$$C-\frac{A\cdot B+A^3\cdot B}{A+A^3-A^2+B+A^2\cdot B}=0$$

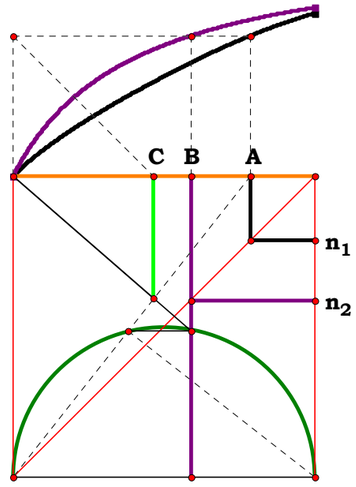
$$C-\frac{\left(n_1{}^2+1\right)}{\left(n_1{}^2+1\right)\cdot\left(n_1+n_2\right)-n_1\cdot n_2}=0$$

Unit = 1.00000
A = 0.78476
B = 0.58771
C = 0.46524

n_1 = 1.27427
n_2 = 1.70151

$$\frac{A\cdot B+A^3\cdot B}{((A+A^3)-A^2)+B+A^2\cdot B}-C = 0.00000$$

$$\frac{n_1{}^2+1}{(n_1{}^2+1)\cdot(n_1+n_2)-n_1\cdot n_2}-C = 0.00000$$



3OBT2R3

Given.

$A := .45038 \qquad B := .70893$

$n_1 := \frac{1}{A} \qquad n_2 := \frac{1}{B}$

Descriptions.

$bA := \sqrt{1 + A^2} \qquad bd := \frac{A}{bA} \qquad de := \frac{bd}{bA}$

$bh := \sqrt{B^2 + de^2} \qquad bf := \frac{B}{bh} \qquad C := \frac{B \cdot bf}{bh}$

$C = 0.781888$

Definitions.

$$C - \frac{B^2 \cdot \left(A^2 + 1\right)^2}{A^4 \cdot B^2 + 2 \cdot A^2 \cdot B^2 + A^2 + B^2} = 0$$

$$C - \frac{\left({n_1}^2 + 1\right)^2}{{n_1}^4 + {n_1}^2 \cdot {n_2}^2 + 2 \cdot {n_1}^2 + 1} = 0$$

Unit = 1.00000

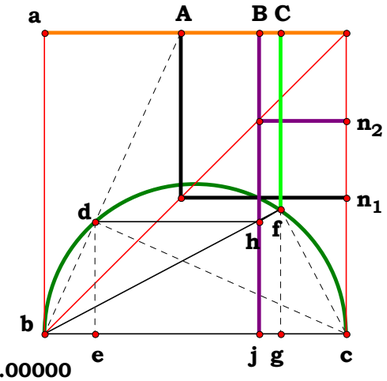
A = 0.45038

B = 0.70893

C = 0.78189

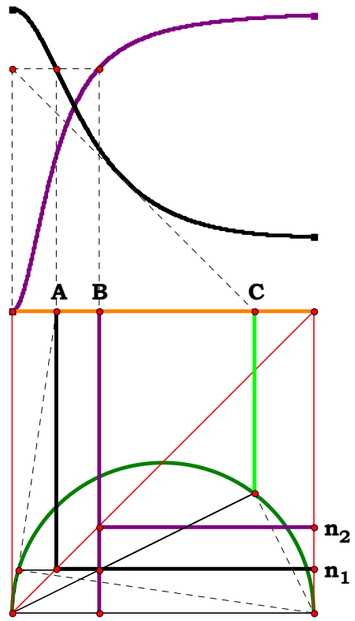
n_1 = 2.22036

n_2 = 1.41058



$$\frac{B^2 \cdot (A^2+1)^2}{A^4 \cdot B^2 + 2 \cdot A^2 \cdot B^2 + A^2 + B^2} - C = 0.00000$$

$$\frac{(n_1{}^2+1)^2}{n_1{}^4 + (n_1 \cdot n_2)^2 + 2 \cdot n_1{}^2 + 1} - C = 0.00000$$



Unit = 1.00000

A = 0.14525

B = 0.28677

C = 0.80253

n_1 = 6.88470

n_2 = 3.48715

$$\frac{B^2 \cdot (A^2+1)^2}{A^4 \cdot B^2 + 2 \cdot A^2 \cdot B^2 + A^2 + B^2} - C = 0.00000$$

$$\frac{(n_1{}^2+1)^2}{n_1{}^4 + (n_1 \cdot n_2)^2 + 2 \cdot n_1{}^2 + 1} - C = 0.00000$$

3OBT2R4

Given.

$A := .65519 \qquad B := .90120$

$n_1 := \frac{1}{A} \qquad n_2 := \frac{1}{B}$

Descriptions.

$bA := \sqrt{1 + A^2} \qquad bd := \frac{A}{bA}$

$de := \frac{bd}{bA} \qquad bh := \sqrt{de^2 + B^2}$

$bf := \frac{B}{bh} \qquad fg := \frac{de \cdot bf}{bh} \qquad C := \frac{B}{1 - fg}$

$C = 1.512349$

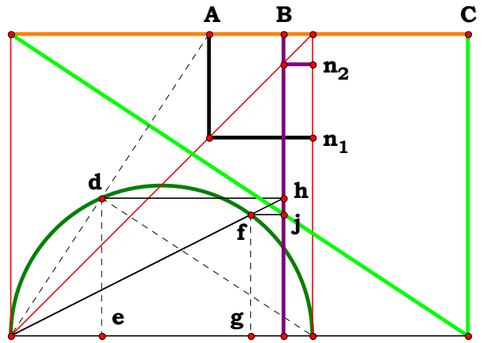
Definitions.

$$C - \frac{B^3 \cdot \left(A^2 + 1\right)^2 + A^2 \cdot B}{B \cdot \left(A^2 + 1\right) \cdot \left(B \cdot A^2 - A + B\right) + A^2} = 0$$

$$C - \frac{{n_1}^2 \cdot \left({n_1}^2 + {n_2}^2\right) + \left(2 \cdot {n_1}^2 + 1\right)}{{n_1}^2 \cdot {n_2}^3 + n_2 \cdot \left({n_1}^2 + 1\right) \cdot \left({n_1}^2 - n_2 \cdot n_1 + 1\right)} = 0$$

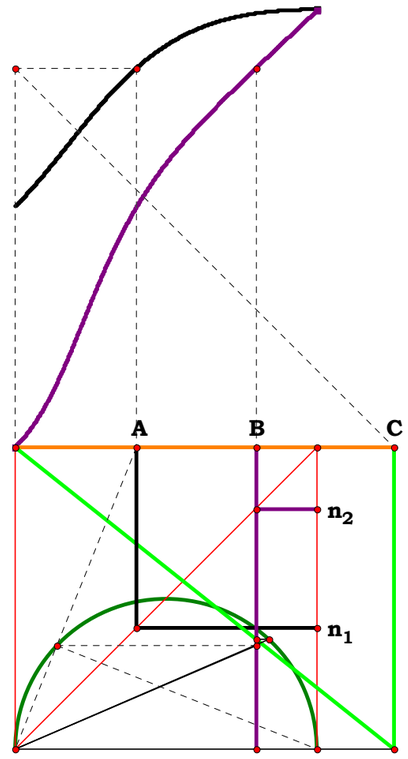
Unit = 1.00000
A = 0.65519
B = 0.90120
C = 1.51235

n_1 = 1.52628
n_2 = 1.10963



$$\frac{B^3 \cdot (A^2+1)^2 + A^2 \cdot B}{B \cdot (A^2+1) \cdot ((A^2 \cdot B - A) + B) + A^2} - C = 0.00000$$

$$\frac{{n_1}^2 \cdot ({n_1}^2 + {n_2}^2) + 2 \cdot {n_1}^2 + 1}{{n_1}^2 \cdot {n_2}^3 + n_2 \cdot ({n_1}^2 + 1) \cdot (({n_1}^2 - n_1 \cdot n_2) + 1)} - C = 0.00000$$



Unit = 1.00000
A = 0.40022
B = 0.79671
C = 1.25392

n_1 = 2.49863
n_2 = 1.25517

$$\frac{B^3 \cdot (A^2+1)^2 + A^2 \cdot B}{B \cdot (A^2+1) \cdot ((A^2 \cdot B - A) + B) + A^2} - C = 0.00000$$

$$\frac{{n_1}^2 \cdot ({n_1}^2 + {n_2}^2) + 2 \cdot {n_1}^2 + 1}{{n_1}^2 \cdot {n_2}^3 + n_2 \cdot ({n_1}^2 + 1) \cdot (({n_1}^2 - n_1 \cdot n_2) + 1)} - C = 0.00000$$

3OBT2R5

Given.

$A := .33752 \qquad B := .51666$

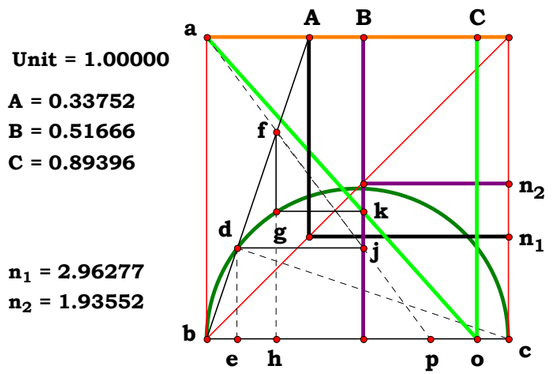
$n_1 := \frac{1}{A} \qquad n_2 := \frac{1}{B}$

Descriptions.

$bA := \sqrt{1 + A^2} \qquad bd := \frac{A}{bA} \qquad de := \frac{bd}{bA}$

$bp := \frac{B}{1 - de} \qquad bh := \frac{A \cdot bp}{A + bp} \qquad gh := \sqrt{bh \cdot (1 - bh)}$

$C := \frac{B}{1 - gh} \qquad C = 0.893965$



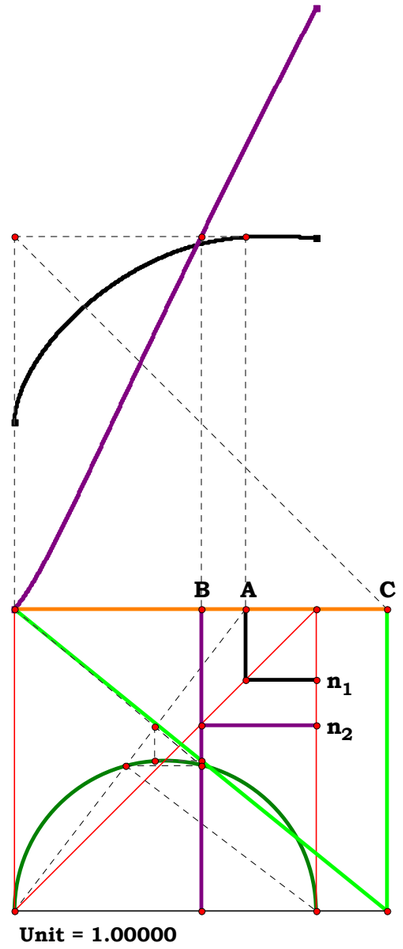
Unit = 1.00000

A = 0.33752
B = 0.51666
C = 0.89396

$n_1 = 2.96277$
$n_2 = 1.93552$

$$\frac{B\cdot(((A+B+A^2\cdot B)-A^2)+A^3)}{(((A+B+A^2\cdot B)-A^2)+A^3)-\sqrt{A\cdot B\cdot(A^2+1)\cdot((((A+B+A^2\cdot B)-A^3\cdot B-A^2)+A^3)-A\cdot B)}}-C = 0.00000$$

$$\frac{((n_1^3+n_1^2\cdot n_2+n_1)-n_1\cdot n_2)+n_2}{n_2\cdot((n_1^3+n_2\cdot((n_1^2-n_1)+1)+n_1)-\sqrt{(n_1+n_2)\cdot((n_1^4-n_1^3)+2\cdot n_1^2+1)-(2\cdot n_1^2+n_1\cdot n_2+1)})}-C = 0.00000$$



A = 0.76386
B = 0.61697
C = 1.23102

$n_1 = 1.30913$
$n_2 = 1.62081$

Unit = 1.00000

$$\frac{B\cdot(((A+B+A^2\cdot B)-A^2)+A^3)}{(((A+B+A^2\cdot B)-A^2)+A^3)-\sqrt{A\cdot B\cdot(A^2+1)\cdot((((A+B+A^2\cdot B)-A^3\cdot B-A^2)+A^3)-A\cdot B)}}-C = 0.00000$$

$$\frac{((n_1^3+n_1^2\cdot n_2+n_1)-n_1\cdot n_2)+n_2}{n_2\cdot((n_1^3+n_2\cdot((n_1^2-n_1)+1)+n_1)-\sqrt{(n_1+n_2)\cdot((n_1^4-n_1^3)+2\cdot n_1^2+1)-(2\cdot n_1^2+n_1\cdot n_2+1)})}-C = 0.00000$$

Definitions.

$$C - \frac{B\cdot\left(A+B+A^2\cdot B-A^2+A^3\right)}{A+B+A^2\cdot B-A^2+A^3-\sqrt{A\cdot B\cdot\left(A^2+1\right)\cdot\left(A+B+A^2\cdot B-A^3\cdot B-A^2+A^3-A\cdot B\right)}} = 0$$

$$C - \frac{\left(n_1^{\,3}+n_2\cdot n_1^{\,2}+n_1-n_2\cdot n_1+n_2\right)}{n_2\cdot\left[n_1-\sqrt{\left(n_1+n_2\right)\cdot\left(n_1^{\,4}-n_1^{\,3}+2\cdot n_1^{\,2}+1\right)-\left(2\cdot n_1^{\,2}+n_2\cdot n_1+1\right)}+n_1^{\,3}+n_2\cdot\left(n_1^{\,2}-n_1+1\right)\right]} = 0$$

3OBT2R6

Given.

$A := .45038 \qquad B := .55010$

$n_1 := \frac{1}{A} \qquad n_2 := \frac{1}{B}$

Descriptions.

$bA := \sqrt{1 + A^2} \qquad bd := \frac{A}{bA} \qquad de := \frac{bd}{bA}$

$bm := \frac{B}{1 - de} \qquad bh := \frac{A \cdot bm}{A + bm} \qquad gh := \sqrt{bh \cdot (1 - bh)}$

$C := \frac{bh}{gh} \qquad C = 0.651284$

Definitions.

$$C - \frac{A \cdot B \cdot \left(A^2 + 1\right)}{\sqrt{A \cdot B \cdot \left(A^2 + 1\right) \cdot \left(A + B + A^2 \cdot B - A^3 \cdot B - A^2 + A^3 - A \cdot B\right)}} = 0$$

$$C - \frac{\left(n_1{}^2 + 1\right)}{\sqrt{\left(n_1{}^2 + 1\right) \cdot \left[\left(n_1{}^2 - n_1 + 1\right) \cdot \left(n_1 + n_2\right) - 1\right]}} = 0$$

Unit = 1.00000

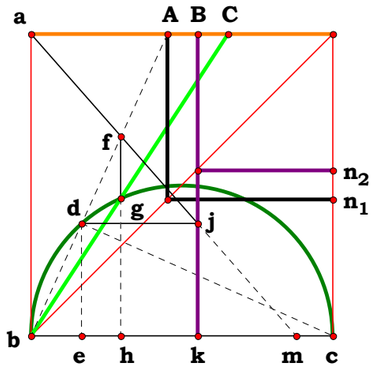
A = 0.45038

B = 0.55010

C = 0.65128

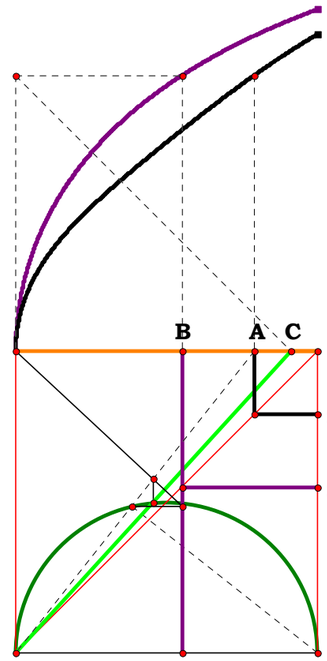
n_1 = 2.22036

n_2 = 1.81786



$$\frac{A \cdot B \cdot (A^2+1)}{\sqrt{A \cdot B \cdot (A^2+1) \cdot ((((A+B+A^2 \cdot B)-A^3 \cdot B-A^2)+A^3)-A \cdot B)}} - C = 0.00000$$

$$\frac{n_1{}^2+1}{\sqrt{(n_1{}^2+1) \cdot (((n_1{}^2-n_1)+1) \cdot (n_1+n_2)-1)}} - C = 0.00000$$



Unit = 1.00000

A = 0.78894

B = 0.55010

C = 0.91234

n_1 = 1.26752

n_2 = 1.81786

$$\frac{A \cdot B \cdot (A^2+1)}{\sqrt{A \cdot B \cdot (A^2+1) \cdot ((((A+B+A^2 \cdot B)-A^3 \cdot B-A^2)+A^3)-A \cdot B)}} - C = 0.00000$$

$$\frac{n_1{}^2+1}{\sqrt{(n_1{}^2+1) \cdot (((n_1{}^2-n_1)+1) \cdot (n_1+n_2)-1)}} - C = 0.00000$$

3OBT2R7

Given.

$A := .86000 \qquad B := .28259$

$n_1 := \frac{1}{A} \qquad n_2 := \frac{1}{B}$

Descriptions.

$bA := \sqrt{1 + A^2} \qquad bd := \frac{A}{bA} \qquad de := \frac{bd}{bA}$

$C := \frac{B}{1 - de} \qquad C = 0.558883$

Definitions.

$$C - \frac{A^2 \cdot B + B}{A^2 - A + 1} = 0$$

$$C - \frac{\left(n_1{}^2 + 1\right)}{n_2 \cdot \left(n_1{}^2 - n_1 + 1\right)} = 0$$

Unit = 1.00000

A = 0.86000

B = 0.28259

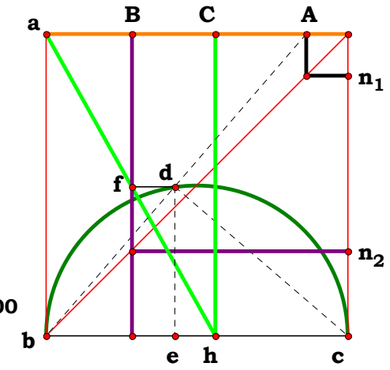
C = 0.55888

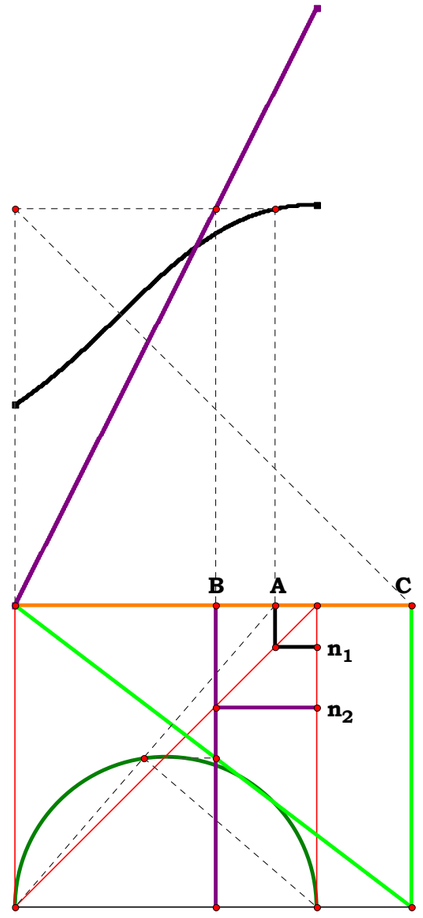
n_1 = 1.16279

n_2 = 3.53873

$\frac{A^2 \cdot B + B}{(A^2 - A) + 1} - C = 0.00000$

$\frac{n_1{}^2 + 1}{n_2 \cdot ((n_1{}^2 - n_1) + 1)} - C = 0.00000$





Unit = 1.00000

A = 0.86000

B = 0.66295

C = 1.31113

n_1 = 1.16279

n_2 = 1.50841

$\frac{A^2 \cdot B + B}{(A^2 - A) + 1} - C = 0.00000$

$\frac{n_1{}^2 + 1}{n_2 \cdot ((n_1{}^2 - n_1) + 1)} - C = 0.00000$

3OBT2R8

Given.

$A := .86000 \qquad B := .30349$

$n_1 := \frac{1}{A} \qquad n_2 := \frac{1}{B}$

Descriptions.

$bA := \sqrt{1 + A^2} \qquad bd := \frac{A}{bA} \qquad de := \frac{bd}{bA}$

$C := \frac{B}{de} \qquad C = 0.613897$

Definitions.

$C - \frac{A^2 \cdot B + B}{A} = 0$

$C - \frac{n_1{}^2 + 1}{n_1 \cdot n_2} = 0$

Unit = 1.00000

A = 0.86000

B = 0.30349

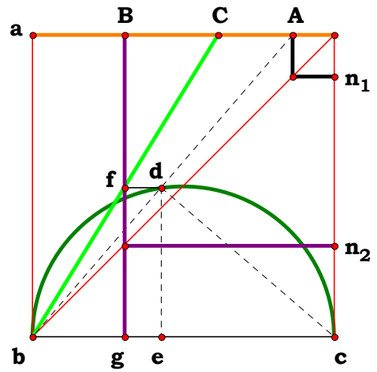
C = 0.61389

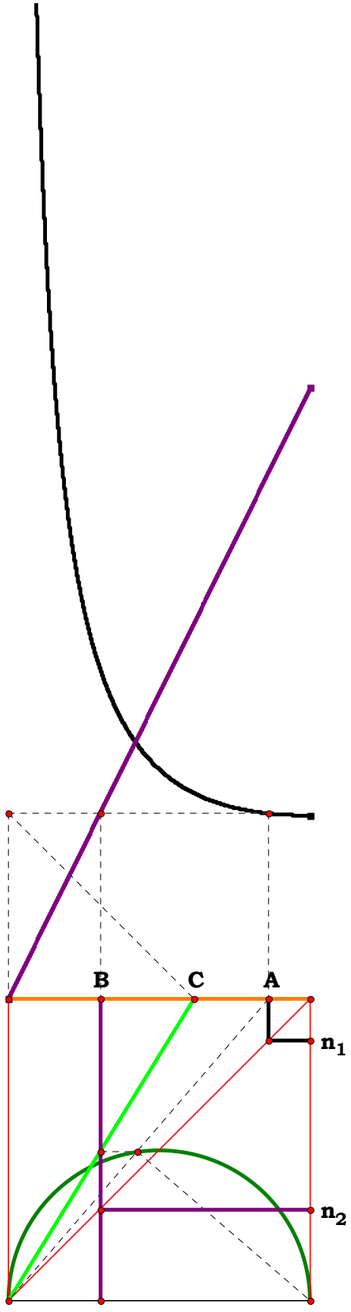
n_1 = 1.16279

n_2 = 3.29504

$\frac{A^2 \cdot B+B}{A}$-C = 0.00000

$\frac{n_1{}^2+1}{n_1 \cdot n_2}$-C = 0.00000





Unit = 1.00000

A = 0.86000

B = 0.30349

C = 0.61389

n_1 = 1.16279

n_2 = 3.29504

$\frac{A^2 \cdot B+B}{A}$-C = 0.00000

$\frac{n_1{}^2+1}{n_1 \cdot n_2}$-C = 0.00000

3OBT2R9

Given.

$A := .36260 \qquad B := .58354$

$n_1 := \frac{1}{A} \qquad n_2 := \frac{1}{B}$

Descriptions.

$bA := \sqrt{1 + A^2} \qquad bd := \frac{A}{bA} \qquad de := \frac{bd}{bA}$

$bo := \frac{B}{1 - de} \qquad bh := \frac{A \cdot bo}{A + bo} \qquad gh := \sqrt{bh \cdot (1 - bh)}$

$C := \frac{B}{gh} \qquad C = 1.33891$

Definitions.

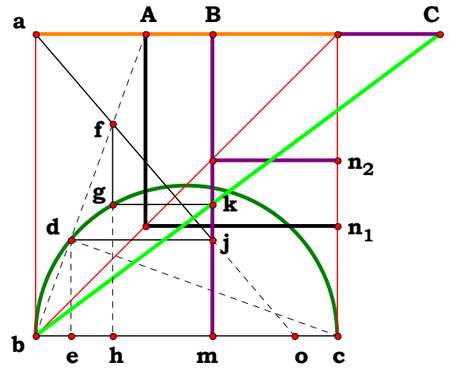
$$C - \frac{\left(A^2 + 1\right) \cdot B^2 + \left(A^3 - A^2 + A\right) \cdot B}{\sqrt{A \cdot B \cdot \left(A^2 + 1\right) \cdot \left[(1 - B) \cdot \left(A^3 - A^2 + A\right) + B\right]}} = 0$$

$$C - \frac{\left(n_1{}^3 + n_2 \cdot n_1{}^2 + n_1 - n_2 \cdot n_1 + n_2\right)}{n_2 \cdot \sqrt{\left(n_1{}^2 + 1\right) \cdot \left[n_1{}^3 + \left(n_1{}^2 - n_1 + 1\right) \cdot \left(n_2 - 1\right)\right]}} = 0$$

Unit = 1.00000

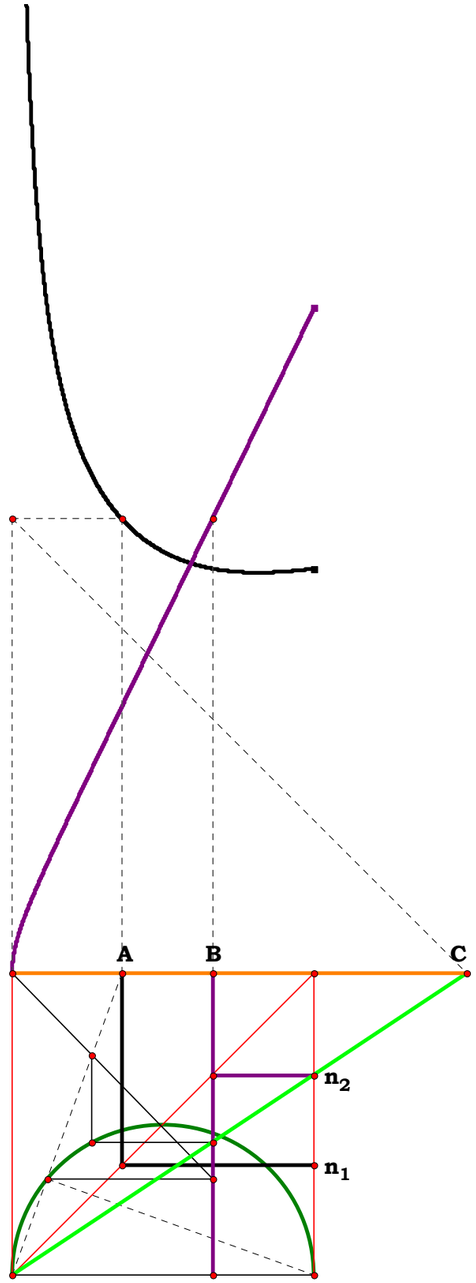
A = 0.36260
B = 0.58354
C = 1.33890

n_1 = 2.75785
n_2 = 1.71369



$$\frac{B^2 \cdot (A^2+1) + B \cdot ((A^3-A^2)+A)}{\sqrt{A \cdot B \cdot (A^2+1) \cdot ((1-B) \cdot ((A^3-A^2)+A)+B)}} - C = 0.00000$$

$$\frac{((n_1{}^3+n_1{}^2 \cdot n_2+n_1)-n_1 \cdot n_2)+n_2}{n_2 \cdot \sqrt{(n_1{}^2+1) \cdot (n_1{}^3+(n_2-1) \cdot ((n_1{}^2-n_1)+1))}} - C = 0.00000$$



Unit = 1.00000

A = 0.36260
B = 0.66295
C = 1.50334

n_1 = 2.75785
n_2 = 1.50841

$$\frac{B^2 \cdot (A^2+1) + B \cdot ((A^3-A^2)+A)}{\sqrt{A \cdot B \cdot (A^2+1) \cdot ((1-B) \cdot ((A^3-A^2)+A)+B)}} - C = 0.00000$$

$$\frac{((n_1{}^3+n_1{}^2 \cdot n_2+n_1)-n_1 \cdot n_2)+n_2}{n_2 \cdot \sqrt{(n_1{}^2+1) \cdot (n_1{}^3+(n_2-1) \cdot ((n_1{}^2-n_1)+1))}} - C = 0.00000$$

3OBT02R10

Given.

$A := .88926 \qquad B := .18645$

$n_1 := \frac{1}{A} \qquad n_2 := \frac{1}{B}$

Descriptions.

$bA := \sqrt{1 + A^2} \qquad bd := \frac{A}{bA} \qquad de := \frac{bd}{bA}$

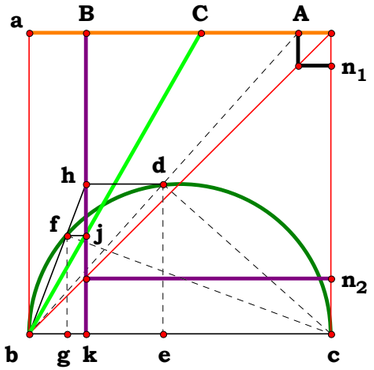
$bh := \sqrt{B^2 + de^2} \qquad bf := \frac{B}{bh} \qquad fg := \frac{de \cdot bf}{bh}$

$C := \frac{B}{fg} \qquad C = 0.566583$

Definitions.

$$C - \frac{A^2 \cdot B^2 \cdot \left(A^2 + 2\right) + A^2 + B^2}{A \cdot \left(A^2 + 1\right)} = 0$$

$$C - \frac{\left(2 \cdot {n_1}^2 + 1\right) + {n_1}^2 \cdot \left({n_1}^2 + {n_2}^2\right)}{n_1 \cdot {n_2}^2 \cdot \left({n_1}^2 + 1\right)} = 0$$



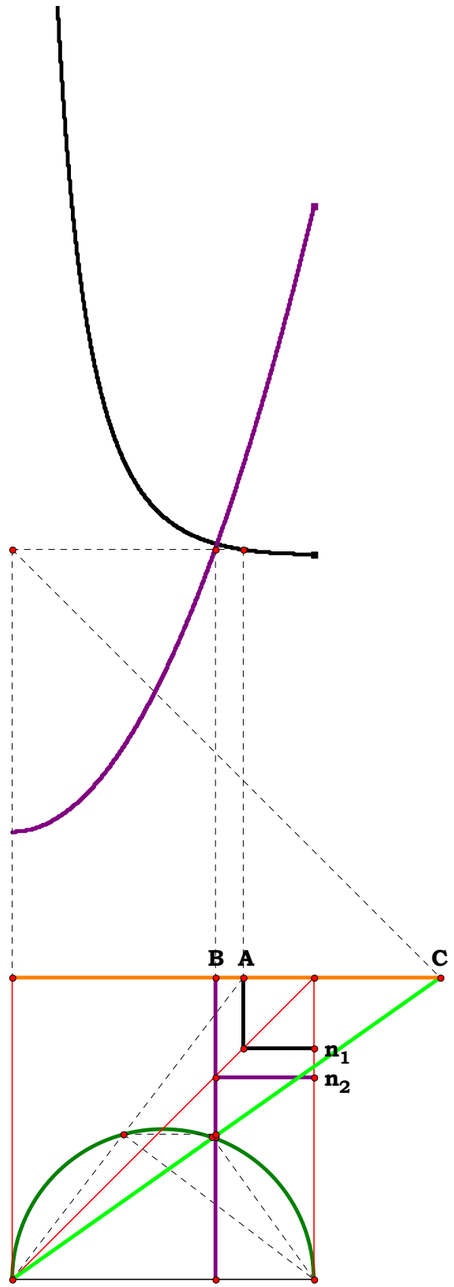
Unit = 1.00000

A = 0.88926
B = 0.18645
C = 0.56658

n_1 = 1.12453
n_2 = 5.36334

$\frac{A^2 \cdot B^2 \cdot (A^2+2) + A^2 + B^2}{A \cdot (A^2+1)} - C = 0.00000$

$\frac{{n_1}^2 \cdot ({n_1}^2 + {n_2}^2) + 2 \cdot {n_1}^2 + 1}{n_1 \cdot {n_2}^2 \cdot ({n_1}^2+1)} - C = 0.00000$



Unit = 1.00000

A = 0.76386
B = 0.67131
C = 1.41661

n_1 = 1.30913
n_2 = 1.48962

$\frac{A^2 \cdot B^2 \cdot (A^2+2) + A^2 + B^2}{A \cdot (A^2+1)} - C = 0.00000$

$\frac{{n_1}^2 \cdot ({n_1}^2 + {n_2}^2) + 2 \cdot {n_1}^2 + 1}{n_1 \cdot {n_2}^2 \cdot ({n_1}^2+1)} - C = 0.00000$

3OBT3R0

Given.

$A := .42530 \quad B := .57518$

$n_1 := \frac{1}{A} \quad n_2 := \frac{1}{B}$

Descriptions.

$bA := \sqrt{1 + A^2} \quad bh := \frac{A}{bA} \quad hj := \frac{bh}{bA}$

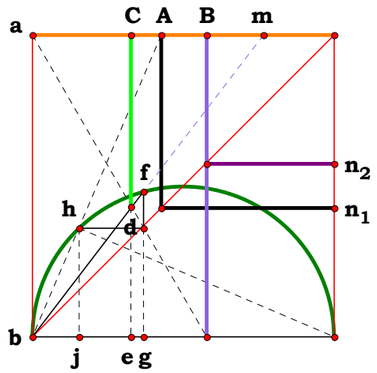
$jk := B \cdot hj \quad bg := B - jk \quad fg := \sqrt{bg \cdot (1 - bg)}$

$am := \frac{bg}{fg} \quad C := \frac{am \cdot B}{am + B} \quad C = 0.327976$

Definitions.

$$C - \frac{B \cdot \left(A^2 - A + 1\right)}{\sqrt{B \cdot \left(A^2 - A + 1\right) \cdot \left(A^2 - A^2 \cdot B - B + A \cdot B + 1\right)} - A + A^2 + 1} = 0$$

$$C - \frac{\left(n_1{}^2 - n_1 + 1\right)}{\sqrt{\left(n_1{}^2 - n_1 + 1\right) \cdot \left[\left(n_2 - 1\right) \cdot n_1{}^2 + \left(n_1 + n_2 - 1\right)\right]} + n_2 \cdot \left(n_1{}^2 - n_1 + 1\right)} = 0$$

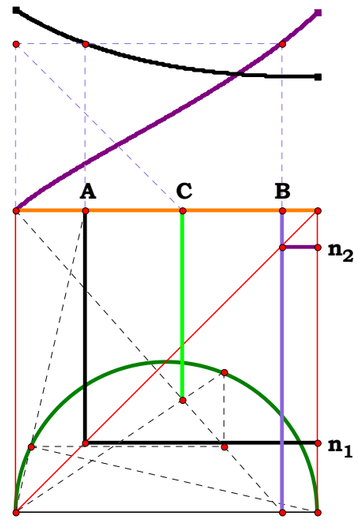


Unit = 1.00000
A = 0.42530
B = 0.57518
C = 0.32797

$n_1 = 2.35129$
$n_2 = 1.73860$

$$\frac{B \cdot ((A^2\text{-}A)+1)}{(A^2\text{-}A)+1+\sqrt{B \cdot ((A^2\text{-}A)+1) \cdot ((A^2\text{-}A^2 \cdot B\text{-}B)+A \cdot B+1)}} \text{-}C = 0.00000$$

$$\frac{(n_1{}^2\text{-}n_1)+1}{n_2 \cdot ((n_1{}^2\text{-}n_1)+1)+\sqrt{((n_1{}^2\text{-}n_1)+1) \cdot ((n_1{}^2 \cdot (n_2\text{-}1)+n_1+n_2)\text{-}1)}} \text{-}C = 0.00000$$



Unit = 1.00000
A = 0.22885
B = 0.88030
C = 0.55309

$n_1 = 4.36974$
$n_2 = 1.13597$

$$\frac{B \cdot ((A^2\text{-}A)+1)}{(A^2\text{-}A)+1+\sqrt{B \cdot ((A^2\text{-}A)+1) \cdot ((A^2\text{-}A^2 \cdot B\text{-}B)+A \cdot B+1)}} \text{-}C = 0.00000$$

$$\frac{(n_1{}^2\text{-}n_1)+1}{n_2 \cdot ((n_1{}^2\text{-}n_1)+1)+\sqrt{((n_1{}^2\text{-}n_1)+1) \cdot ((n_1{}^2 \cdot (n_2\text{-}1)+n_1+n_2)\text{-}1)}} \text{-}C = 0.00000$$

3OBT3R1

Given.

$A := .59249 \qquad B := .32439$

$n_1 := \frac{1}{A} \qquad n_2 := \frac{1}{B}$

Descriptions.

$bA := \sqrt{1 + A^2} \qquad bf := \frac{A}{bA} \qquad fg := \frac{bf}{bA}$

$eh := B \cdot fg \qquad C := B - eh$

$C = 0.182131$

Definitions.

$$C - \frac{A^2 \cdot B - A \cdot B + B}{1 + A^2} = 0$$

$$C - \frac{\left(n_1^{\,2} - n_1 + 1\right)}{n_2 \cdot \left(n_1^{\,2} + 1\right)} = 0$$

Unit = 1.00000

A = 0.59249

B = 0.32439

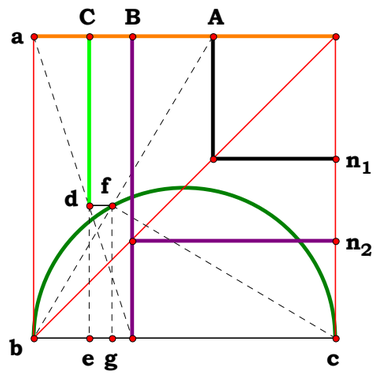
C = 0.18213

n_1 = 1.68779

n_2 = 3.08275

$\frac{(A^2 \cdot B - A \cdot B) + B}{A^2 + 1} - C = 0.00000$

$\frac{(n_1^{\,2} - n_1) + 1}{n_2 \cdot (n_1^{\,2} + 1)} - C = 0.00000$



Unit = 1.00000

A = 0.50890

B = 0.69221

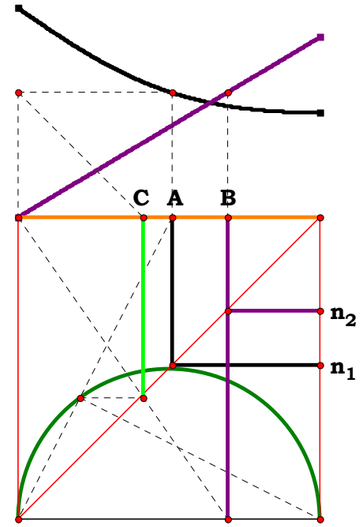
C = 0.41241

n_1 = 1.96504

n_2 = 1.44465

$\frac{(A^2 \cdot B - A \cdot B) + B}{A^2 + 1} - C = 0.00000$

$\frac{(n_1^{\,2} - n_1) + 1}{n_2 \cdot (n_1^{\,2} + 1)} - C = 0.00000$



3OBT3R2

Given.

$A := .34170 \qquad B := .87612$

$n_1 := \frac{1}{A} \qquad n_2 := \frac{1}{B}$

Descriptions.

$bA := \sqrt{1 + A^2} \qquad bh := \frac{A}{bA} \qquad hk := \frac{bh}{bA}$

$ej := B \cdot hk \qquad be := B - ej \qquad am := \frac{be}{hk}$

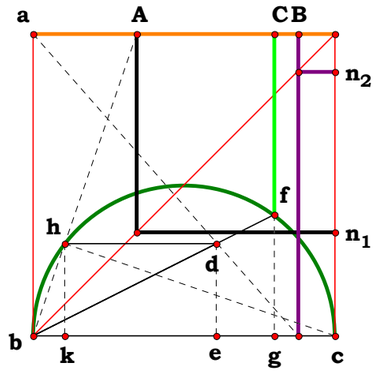
$bm := \sqrt{1 + am^2} \qquad bf := \frac{am}{bm} \qquad C := \frac{am \cdot bf}{bm}$

$C = 0.797946$

Definitions.

$$C - \frac{A \cdot B^2 \cdot (A - 1) \cdot \left(A^2 - A + 2\right) + B^2}{A \cdot B^2 \cdot (A - 1) \cdot \left(A^2 - A + 2\right) + A^2 + B^2} = 0$$

$$C - \frac{\left({n_1}^2 - n_1 + 1\right)^2}{{n_1}^2 \cdot {n_2}^2 + 1 + n_1 \cdot \left(n_1 - 1\right) \cdot \left({n_1}^2 - n_1 + 2\right)} = 0$$

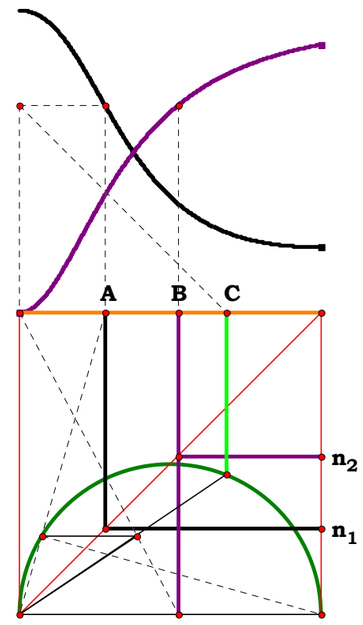


Unit = 1.00000
A = 0.34170
B = 0.87612
C = 0.79795

$n_1 = 2.92653$
$n_2 = 1.14139$

$$\frac{A \cdot B^2 \cdot (A-1) \cdot ((A^2-A)+2) + B^2}{A \cdot B^2 \cdot (A-1) \cdot ((A^2-A)+2) + A^2 + B^2} - C = 0.00000$$

$$\frac{((n_1{}^2 - n_1)+1)^2}{n_1{}^2 \cdot n_2{}^2 + 1 + n_1 \cdot (n_1-1) \cdot ((n_1{}^2 - n_1)+2)} - C = 0.00000$$



Unit = 1.00000
A = 0.28318
B = 0.52502
C = 0.68587

$n_1 = 3.53127$
$n_2 = 1.90470$

$$\frac{A \cdot B^2 \cdot (A-1) \cdot ((A^2-A)+2) + B^2}{A \cdot B^2 \cdot (A-1) \cdot ((A^2-A)+2) + A^2 + B^2} - C = 0.00000$$

$$\frac{((n_1{}^2 - n_1)+1)^2}{n_1{}^2 \cdot n_2{}^2 + 1 + n_1 \cdot (n_1-1) \cdot ((n_1{}^2 - n_1)+2)} - C = 0.00000$$

3OBT2R3

Given.

$A := 2.91820 \qquad B := 1.17360$

$n_1 := \frac{1}{A} \qquad n_2 := \frac{1}{B}$

Descriptions.

$bA := \sqrt{1 + A^2} \qquad bk := \frac{A}{bA}$

$km := \frac{bk}{bA} \qquad jo := B \cdot km$

$bj := B - jo \qquad gj := \sqrt{bj \cdot (1 - bj)}$

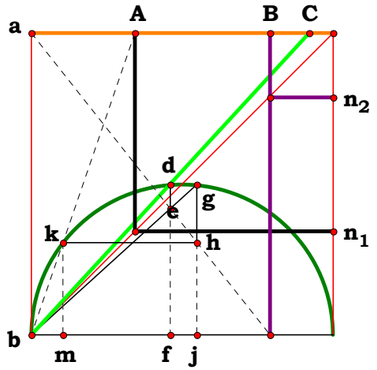
$ap := \frac{bj}{gj} \qquad bf := \frac{ap \cdot B}{ap + B} \qquad df := \sqrt{bf \cdot (1 - bf)} \qquad C := \frac{bf}{df}$

$C = 1.73926$

Definitions.

$$C - \frac{B \cdot \left(A^2 - A + 1\right)}{\sqrt{B \cdot \left(A^2 - A + 1\right)} \cdot \left[\sqrt{B \cdot \left(A^2 - A + 1\right) \cdot \left(A^2 - A^2 \cdot B - B + A \cdot B + 1\right)} - B - A^2 \cdot B - A + A^2 + A \cdot B + 1\right]} = 0$$

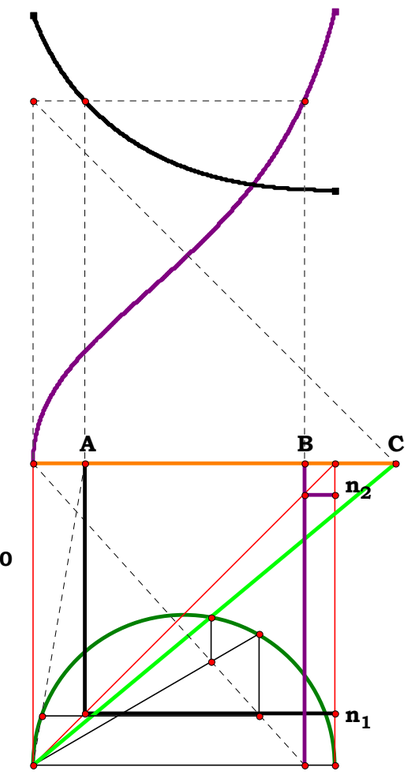
$$C - \frac{\left(n_1{}^2 - n_1 + 1\right)}{\sqrt{\left(n_1{}^2 - n_1 + 1\right)} \cdot \left[\sqrt{\left(n_1{}^2 - n_1 + 1\right) \cdot \left(n_2 \cdot n_1{}^2 - n_1{}^2 + n_1 - 1 + n_2\right)} + \left(n_1{}^2 - n_1 + 1\right) \cdot \left(n_2 - 1\right)\right]} = 0$$



Unit = 1.00000
A = 0.34170
B = 0.78835
C = 0.92125
n_1 = 2.92653
n_2 = 1.26848

$$\frac{B \cdot ((A^2\text{-}A)+1)}{\sqrt{B \cdot ((A^2\text{-}A)+1) \cdot (((\sqrt{B \cdot ((A^2\text{-}A)+1) \cdot ((A^2\text{-}A^2 \cdot B\text{-}B)+A \cdot B+1)})\text{-}B\text{-}A^2 \cdot B\text{-}A)+A^2+A \cdot B+1)}} \text{-} C = 0.00000$$

$$\frac{(n_1{}^2\text{-}n_1)+1}{\sqrt{((n_1{}^2\text{-}n_1)+1) \cdot (\sqrt{((n_1{}^2\text{-}n_1)+1) \cdot ((((n_1{}^2 \cdot n_2\text{-}n_1{}^2)+n_1)\text{-}1)+n_2)}+((n_1{}^2\text{-}n_1)+1) \cdot (n_2\text{-}1))}} \text{-} C = 0.00000$$



Unit = 1.00000
A = 0.17033
B = 0.89702
C = 1.20004
n_1 = 5.87100
n_2 = 1.11480

$$\frac{B \cdot ((A^2\text{-}A)+1)}{\sqrt{B \cdot ((A^2\text{-}A)+1) \cdot (((\sqrt{B \cdot ((A^2\text{-}A)+1) \cdot ((A^2\text{-}A^2 \cdot B\text{-}B)+A \cdot B+1)})\text{-}B\text{-}A^2 \cdot B\text{-}A)+A^2+A \cdot B+1)}} \text{-} C = 0.00000$$

$$\frac{(n_1{}^2\text{-}n_1)+1}{\sqrt{((n_1{}^2\text{-}n_1)+1) \cdot (\sqrt{((n_1{}^2\text{-}n_1)+1) \cdot ((((n_1{}^2 \cdot n_2\text{-}n_1{}^2)+n_1)\text{-}1)+n_2)}+((n_1{}^2\text{-}n_1)+1) \cdot (n_2\text{-}1))}} \text{-} C = 0.00000$$

3OBT3R4

Given.

$A := .31662 \qquad B := .60443$

$n_1 := \frac{1}{A} \qquad n_2 := \frac{1}{B}$

Descriptions.

$bA := \sqrt{1 + A^2} \qquad bg := \frac{A}{bA}$

$gh := \frac{bg}{bA} \qquad fj := B \cdot gh$

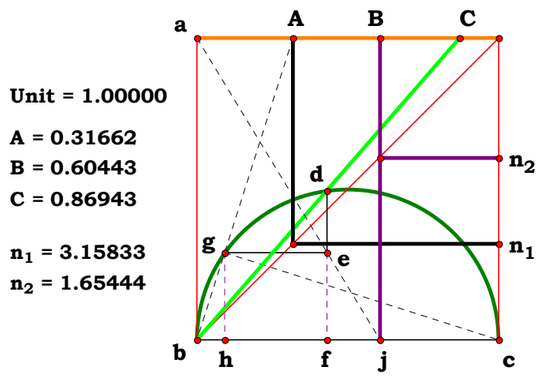
$bf := B - fj \qquad df := \sqrt{bf \cdot (1 - bf)}$

$C := \frac{bf}{df} \qquad C = 0.869427$

Definitions.

$$C - \frac{B \cdot \left(A^2 - A + 1\right)}{\sqrt{B \cdot \left(A^2 - A + 1\right) \cdot \left(A^2 - A^2 \cdot B - B + A \cdot B + 1\right)}} = 0$$

$$C - \frac{\left({n_1}^2 - n_1 + 1\right)}{\sqrt{\left[\left({n_1}^2 - n_1 + 1\right) \cdot \left(n_1 + n_2 - {n_1}^2 + {n_1}^2 \cdot n_2 - 1\right)\right]}} = 0$$



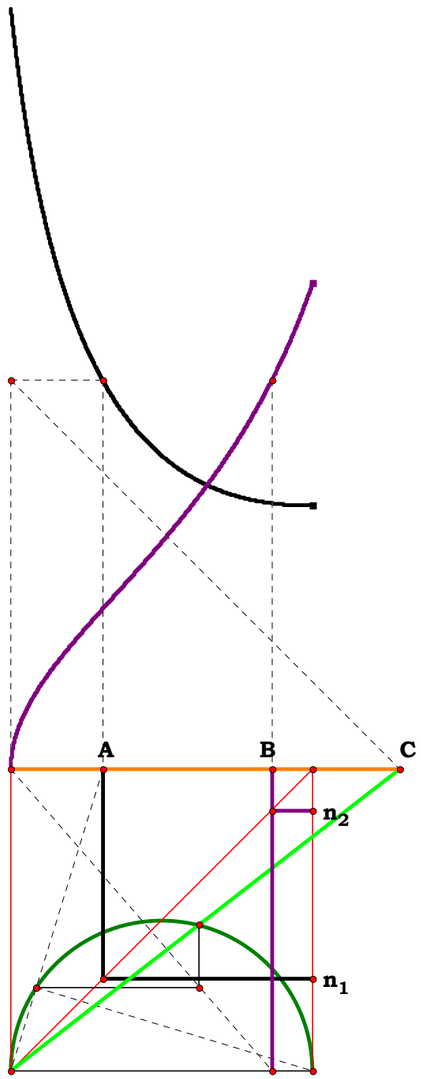
Unit = 1.00000

A = 0.31662
B = 0.60443
C = 0.86943

n_1 = 3.15833
n_2 = 1.65444

$$\frac{B \cdot ((A^2 - A) + 1)}{\sqrt{B \cdot ((A^2 - A) + 1) \cdot ((A^2 - A^2 \cdot B - B) + A \cdot B + 1)}} - C = 0.00000$$

$$\frac{(n_1^2 - n_1) + 1}{\sqrt{((n_1^2 - n_1) + 1) \cdot ((((n_1 + n_2) - n_1^2) + n_1^2 \cdot n_2) - 1)}} - C = 0.00000$$



A = 0.30408
B = 0.86358
C = 1.28608

n_1 = 3.28857
n_2 = 1.15797

Unit = 1.00000

$$\frac{B \cdot ((A^2 - A) + 1)}{\sqrt{B \cdot ((A^2 - A) + 1) \cdot ((A^2 - A^2 \cdot B - B) + A \cdot B + 1)}} - C = 0.00000$$

$$\frac{(n_1^2 - n_1) + 1}{\sqrt{((n_1^2 - n_1) + 1) \cdot ((((n_1 + n_2) - n_1^2) + n_1^2 \cdot n_2) - 1)}} - C = 0.00000$$

3OBT3R5

Given.

$A := .55905 \qquad B := .79671$

$n_1 := \frac{1}{A} \qquad n_2 := \frac{1}{B}$

Descriptions.

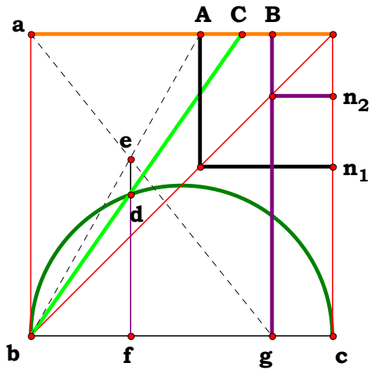
$bf := \frac{A \cdot B}{A + B} \qquad df := \sqrt{bf \cdot (1 - bf)}$

$C := \frac{bf}{df} \qquad C = 0.69947$

Definitions.

$$C - \frac{A \cdot B}{\sqrt{A \cdot B \cdot (A + B - A \cdot B)}} = 0$$

$$C - \frac{1}{\sqrt{(n_1 + n_2 - 1)}} = 0$$

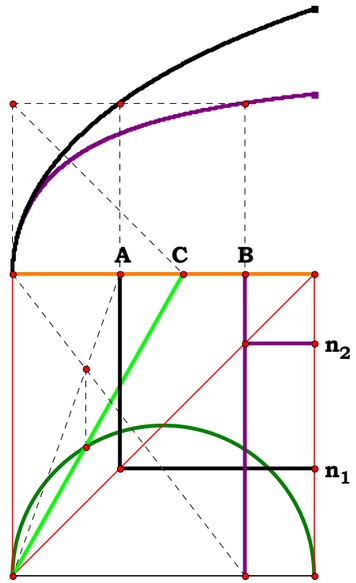


Unit = 1.00000
A = 0.55905
B = 0.79671
C = 0.69947

n_1 = 1.78874
n_2 = 1.25517

$\frac{A \cdot B}{\sqrt{A \cdot B \cdot ((A+B)-A \cdot B)}} - C = 0.00000$

$\frac{1}{\sqrt{(n_1+n_2)-1}} - C = 0.00000$



Unit = 1.00000
A = 0.35424
B = 0.77011
C = 0.56601

n_1 = 2.82293
n_2 = 1.29852

$\frac{A \cdot B}{\sqrt{A \cdot B \cdot ((A+B)-A \cdot B)}} - C = 0.00000$

$\frac{1}{\sqrt{(n_1+n_2)-1}} - C = 0.00000$

3OBT3R6

Given.

$A := .52561 \qquad B := .77581$

$n_1 := \frac{1}{A} \qquad n_2 := \frac{1}{B}$

Descriptions.

$bA := \sqrt{1 + A^2} \qquad bf := \frac{A}{bA} \qquad fh := \frac{bf}{bA}$

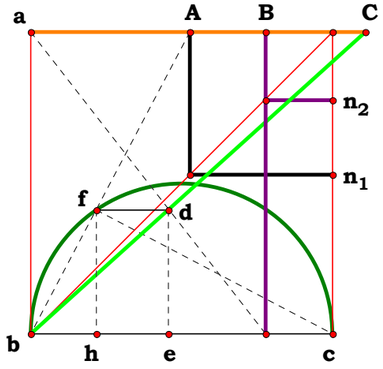
$eh := B \cdot fh \qquad be := B - eh \qquad C := \frac{be}{fh}$

$C = 1.107982$

Definitions.

$$C - \frac{B \cdot \left(A^2 - A + 1\right)}{A} = 0$$

$$C - \frac{{n_1}^2 - n_1 + 1}{n_1 \cdot n_2} = 0$$



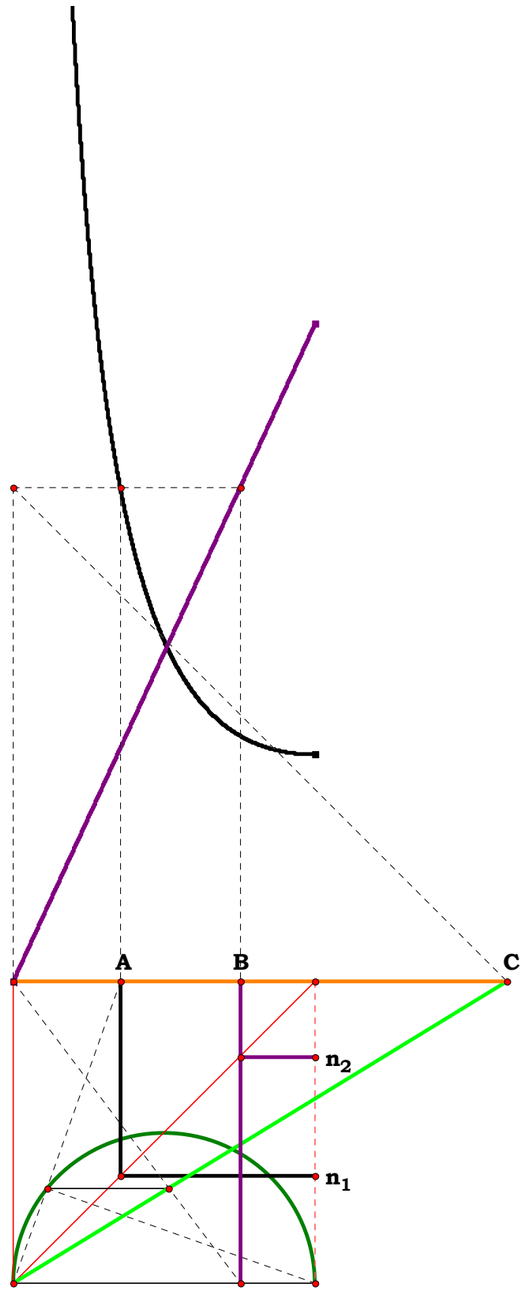
Unit = 1.00000

A = 0.52561
B = 0.77581
C = 1.10797

n_1 = 1.90254
n_2 = 1.28898

$\frac{B \cdot ((A^2 - A) + 1)}{A} - C = 0.00000$

$\frac{(n_1^2 - n_1) + 1}{n_1 \cdot n_2} - C = 0.00000$



Unit = 1.00000

A = 0.35424
B = 0.75073
C = 1.63447

n_1 = 2.82293
n_2 = 1.33204

$\frac{B \cdot ((A^2 - A) + 1)}{A} - C = 0.00000$

$\frac{(n_1^2 - n_1) + 1}{n_1 \cdot n_2} - C = 0.00000$

3OBT3R7

Given.

$A := 3.27481 \qquad B := 1.82096$

$n_1 := \frac{1}{A} \qquad n_2 := \frac{1}{B}$

Descriptions.

$be := \frac{B \cdot A}{A + B} \qquad de := \frac{be}{A} \qquad eg := \frac{1}{2} - \sqrt{\left(\frac{1}{2}\right)^2 - de^2}$

$bg := 1 - eg \qquad C := \frac{bg}{de} \qquad C = 2.377849$

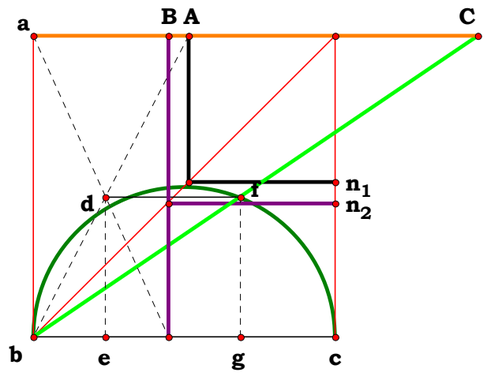
Definitions.

$$C - \frac{\sqrt{(A - B) \cdot (A + 3 \cdot B)} + (A + B)}{2 \cdot B} = 0$$

$$C - \frac{n_1 + n_2 + \sqrt{2 \cdot n_1 \cdot n_2 - 3 \cdot n_1^2 + n_2^2}}{2 \cdot n_1} = 0$$

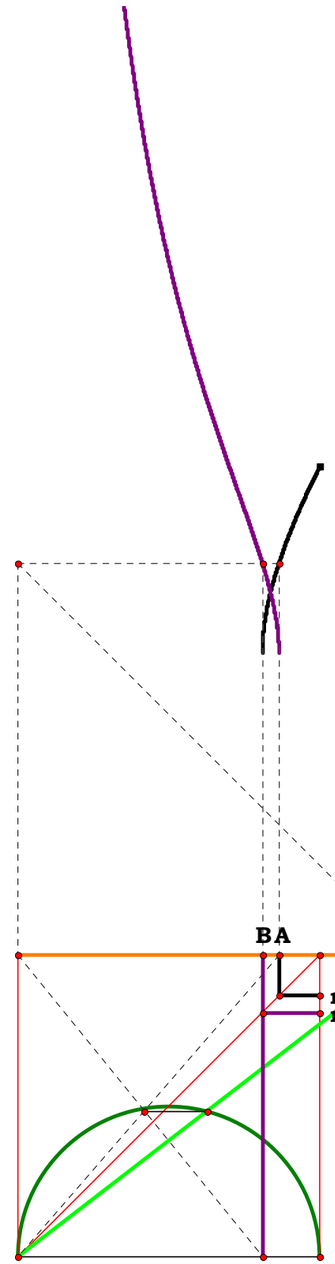
Unit = 1.00000
A = 0.51307
B = 0.44560
C = 1.47214

n_1 = 1.94903
n_2 = 2.24416



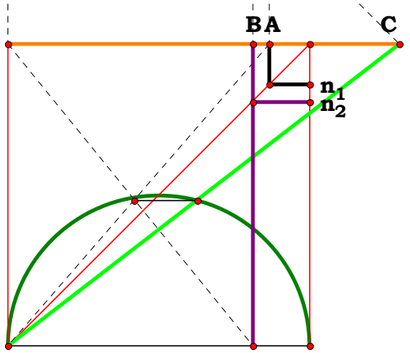
$$\frac{A+B+\sqrt{(A-B)\cdot(A+3\cdot B)}}{2\cdot B} - C = 0.00000$$

$$\frac{n_1+n_2+\sqrt{(2\cdot n_1\cdot n_2-3\cdot n_1^2)+n_2^2}}{2\cdot n_1} - C = 0.00000$$



Unit = 1.00000
A = 0.86418
B = 0.80925
C = 1.29669

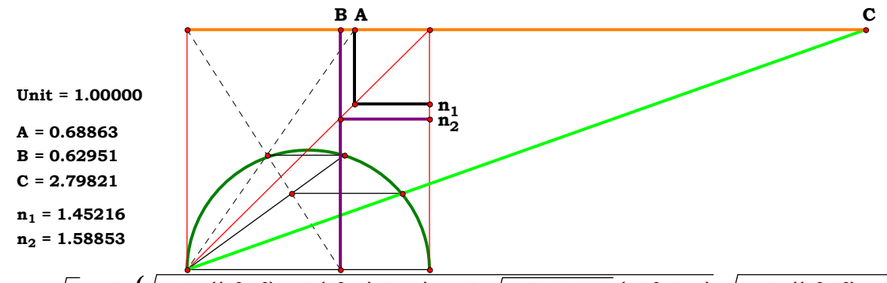
n_1 = 1.15717
n_2 = 1.23572



$$\frac{A+B+\sqrt{(A-B)\cdot(A+3\cdot B)}}{2\cdot B} - C = 0.00000$$

$$\frac{n_1+n_2+\sqrt{(2\cdot n_1\cdot n_2-3\cdot n_1^2)+n_2^2}}{2\cdot n_1} - C = 0.00000$$

3OBT3R8



Unit = 1.00000

A = 0.68863
B = 0.62951
C = 2.79821

n_1 = 1.45216
n_2 = 1.58853

$$\frac{\sqrt{2}\cdot(A+B)\cdot\left(\sqrt{(A+B)\cdot((A^2-B^2)+2\cdot B\cdot(B^2+A)\cdot(B+1))}+(A+B)\cdot\sqrt{(A-B)\cdot(A+3\cdot B)\cdot(2\cdot B^2+B+A)}\right)+\sqrt{(A+B)\cdot((A^2-B^2)+2\cdot B\cdot((B^2-3\cdot B^3)+A\cdot B+A))}+(A+B)\cdot\sqrt{(A-B)\cdot(A+3\cdot B)\cdot(2\cdot B^2+B+A)}}{(4\cdot B^2\cdot\sqrt{(A+B)^3})}\text{-C = 0.00000}$$

$$\frac{\sqrt{2}\cdot\left(\sqrt{(n_1+n_2)\cdot((n_2^3+n_1\cdot n_2^2+2\cdot n_1\cdot n_2)\cdot\sqrt{(2\cdot n_1\cdot n_2-3\cdot n_1^2)+n_2^2}+(2\cdot n_1\cdot(n_2^2+n_1\cdot n_2+n_1))+(n_2^2\cdot((2\cdot n_1\cdot n_2-n_1^2)+n_2^2)))}+\sqrt{(n_1+n_2)\cdot((n_2^3+n_1\cdot n_2^2+2\cdot n_1\cdot n_2)\cdot\sqrt{(2\cdot n_1\cdot n_2-3\cdot n_1^2)+n_2^2}+(2\cdot n_1\cdot((n_2^2+n_1\cdot n_2)-3\cdot n_1))+(n_2^2\cdot((2\cdot n_1\cdot n_2-n_1^2)+n_2^2))))}}{4\cdot\sqrt{(n_1+n_2)}\cdot n_1}\text{-C = 0.00000}$$

Given.

$A := .68863 \qquad B := .62951$

$n_1 := \frac{1}{A} \qquad n_2 := \frac{1}{B}$

Descriptions.

$hk := \frac{B}{A+B} \qquad bk := \frac{1}{2} + \sqrt{\left(\frac{1}{2}\right)^2 - hk^2}$

$ap := \frac{bk}{hk} \qquad ms := \frac{B}{ap+B} \qquad bs := \frac{1}{2} + \sqrt{\left(\frac{1}{2}\right)^2 - ms^2}$

$C := \frac{bs}{ms} \qquad C = 2.798261$

Definitions.

$$C - \frac{\sqrt{2}\cdot(A+B)\cdot\left[\begin{matrix}\sqrt{(A+B)\cdot\left[A^2-B^2+2\cdot B\cdot\left(B^2+A\right)\cdot(B+1)\right]}+(A+B)\cdot\sqrt{(A-B)\cdot(A+3\cdot B)\cdot\left(2\cdot B^2+B+A\right)} & \ldots \\ +\sqrt{(A+B)\cdot\left[A^2-B^2+2\cdot B\cdot\left(B^2-3\cdot B^3+A\cdot B+A\right)\right]}+(A+B)\cdot\sqrt{(A-B)\cdot(A+3\cdot B)\cdot\left(2\cdot B^2+B+A\right)}\end{matrix}\right]}{4\cdot B^2\cdot\sqrt{(A+B)^3}} = 0$$

$$C - \frac{\sqrt{2}\cdot\left[\begin{matrix}\sqrt{\left(n_1+n_2\right)\cdot\left[\left(n_2^3+n_1\cdot n_2^2+2\cdot n_1\cdot n_2\right)\cdot\sqrt{2\cdot n_1\cdot n_2-3\cdot n_1^2+n_2^2}+\left[2\cdot n_1\cdot\left(n_2^2+n_1\cdot n_2+n_1\right)+n_2^2\cdot\left(2\cdot n_1\cdot n_2-n_1^2+n_2^2\right)\right]\right]} & \ldots \\ +\sqrt{\left(n_1+n_2\right)\cdot\left[\left(n_2^3+n_1\cdot n_2^2+2\cdot n_1\cdot n_2\right)\cdot\sqrt{2\cdot n_1\cdot n_2-3\cdot n_1^2+n_2^2}+\left[2\cdot n_1\cdot\left(n_2^2+n_1\cdot n_2-3\cdot n_1\right)+n_2^2\cdot\left(2\cdot n_1\cdot n_2-n_1^2+n_2^2\right)\right]\right]}\end{matrix}\right]}{4\cdot\sqrt{\left(n_1+n_2\right)}\cdot n_1} = 0$$

3OBT3R9

Given.

$A := 3.20588 \qquad B := 1.80293$

$n_1 := \frac{1}{A} \qquad n_2 := \frac{1}{B}$

Descriptions.

$bh := \frac{A \cdot B}{A + B} \qquad gh := \frac{bh}{A}$

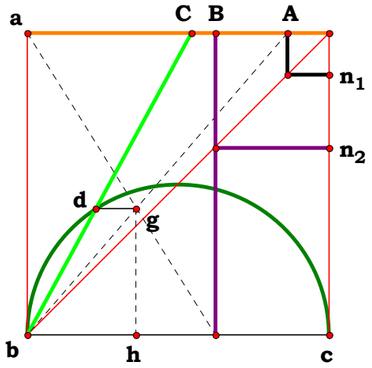
$ef := \sqrt{\left(\frac{1}{2}\right)^2 - gh^2} \qquad be := \frac{1}{2} - ef$

$C := \frac{be}{gh} \qquad C = 0.424954$

Definitions.

$$C - \frac{A + B - \sqrt{(A - B) \cdot (A + 3 \cdot B)}}{2 \cdot B} = 0$$

$$C - \frac{n_1 + n_2 - \sqrt{(n_2 - n_1) \cdot (3 \cdot n_1 + n_2)}}{2 \cdot n_1} = 0$$

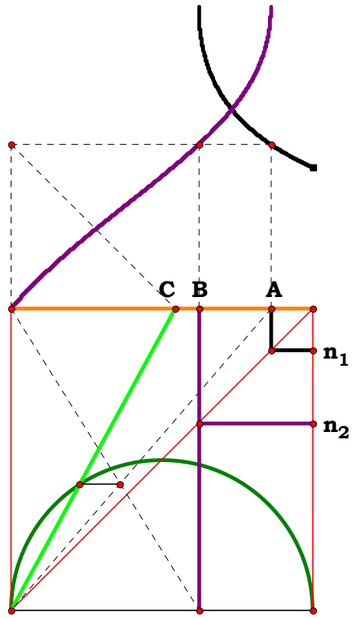


Unit = 1.00000
A = 0.86000
B = 0.62115
C = 0.54304

$n_1 = 1.16279$
$n_2 = 1.60991$

$\frac{(A+B)-\sqrt{(A-B)\cdot(A+3\cdot B)}}{2\cdot B}-C = 0.00000$

$\frac{(n_1+n_2)-\sqrt{(n_2-n_1)\cdot(3\cdot n_1+n_2)}}{2\cdot n_1}-C = 0.00000$



Unit = 1.00000
A = 0.86000
B = 0.62115
C = 0.54304

$n_1 = 1.16279$
$n_2 = 1.60991$

$\frac{(A+B)-\sqrt{(A-B)\cdot(A+3\cdot B)}}{2\cdot B}-C = 0.00000$

$\frac{(n_1+n_2)-\sqrt{(n_2-n_1)\cdot(3\cdot n_1+n_2)}}{2\cdot n_1}-C = 0.00000$

3OBT3R10

Given.

$A := .75133 \qquad B := .57518$

$n_1 := \frac{1}{A} \qquad n_2 := \frac{1}{B}$

Descriptions.

$be := \frac{A \cdot B}{A + B} \qquad de := \frac{be}{A}$

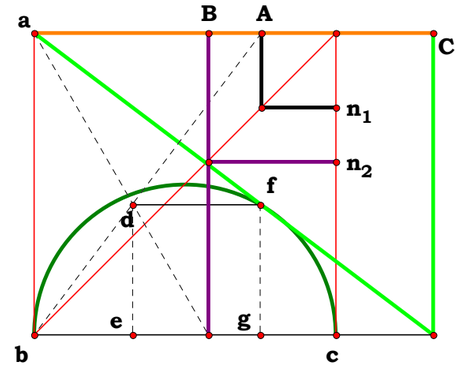
$bg := \frac{1}{2} + \sqrt{\left(\frac{1}{2}\right)^2 - de^2} \qquad C := \frac{bg}{1 - de}$

$C = 1.322349$

Definitions.

$$C - \frac{\sqrt{(A - B) \cdot (A + 3 \cdot B)} + A + B}{2 \cdot A} = 0$$

$$C - \frac{n_1 + n_2 + \sqrt{(n_2 - n_1) \cdot (3 \cdot n_1 + n_2)}}{2 \cdot n_2} = 0$$

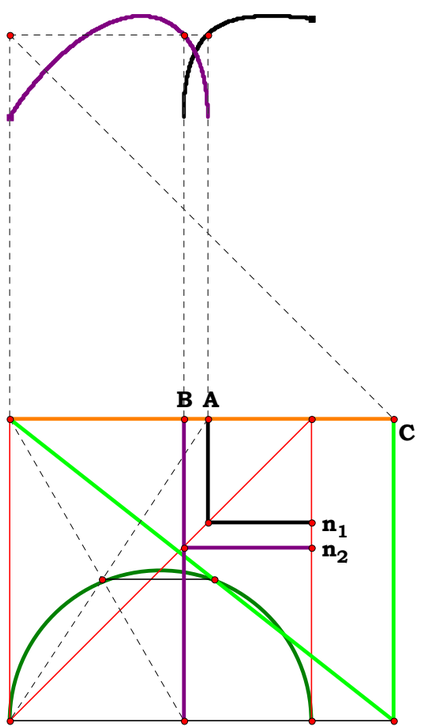


Unit = 1.00000
A = 0.75133
B = 0.57518
C = 1.32235

n_1 = 1.33098
n_2 = 1.73860

$\frac{A+B+\sqrt{(A-B)\cdot(A+3\cdot B)}}{2\cdot A}$ -C = 0.00000

$\frac{n_1+n_2+\sqrt{(n_2-n_1)\cdot(3\cdot n_1+n_2)}}{2\cdot n_2}$ -C = 0.00000



Unit = 1.00000
A = 0.65519
B = 0.57518
C = 1.27201

n_1 = 1.52628
n_2 = 1.73860

$\frac{A+B+\sqrt{(A-B)\cdot(A+3\cdot B)}}{2\cdot A}$ -C = 0.00000

$\frac{n_1+n_2+\sqrt{(n_2-n_1)\cdot(3\cdot n_1+n_2)}}{2\cdot n_2}$ -C = 0.00000

3OBT3R11

Given.

$A := .86000 \qquad B := .65877$

$n_1 := \frac{1}{A} \qquad n_2 := \frac{1}{B}$

Descriptions.

$bh := \frac{A \cdot B}{A + B} \qquad gh := \frac{bh}{A}$

$be := \frac{1}{2} - \sqrt{\left(\frac{1}{2}\right)^2 - gh^2} \qquad C := \frac{be}{1 - gh}$

$C = 0.443773$

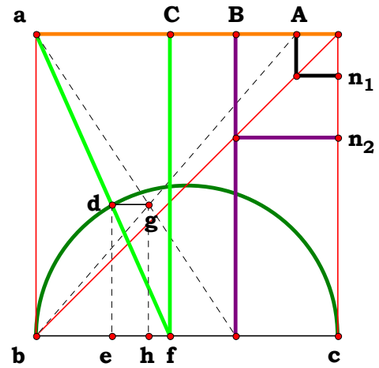
Definitions.

$$C - \frac{A + B - \sqrt{(A - B) \cdot (A + 3 \cdot B)}}{2 \cdot A} = 0$$

$$C - \frac{n_1 + n_2 - \sqrt{(n_2 - n_1) \cdot (3 \cdot n_1 + n_2)}}{2 \cdot n_2} = 0$$

Unit = 1.00000
A = 0.86000
B = 0.65877
C = 0.44378

n_1 = 1.16279
n_2 = 1.51798



$$\frac{(A+B)-\sqrt{(A-B)\cdot(A+3\cdot B)}}{2\cdot A}-C = 0.00000$$

$$\frac{(n_1+n_2)-\sqrt{(n_2-n_1)\cdot(3\cdot n_1+n_2)}}{2\cdot n_2}-C = 0.00000$$

Unit = 1.00000
A = 0.86000
B = 0.60861
C = 0.37611

n_1 = 1.16279
n_2 = 1.64308

$$\frac{(A+B)-\sqrt{(A-B)\cdot(A+3\cdot B)}}{2\cdot A}-C = 0.00000$$

$$\frac{(n_1+n_2)-\sqrt{(n_2-n_1)\cdot(3\cdot n_1+n_2)}}{2\cdot n_2}-C = 0.00000$$

3OBT3R12

Given.

$A := .76386 \qquad B := .60861$

$n_1 := \frac{1}{A} \qquad n_2 := \frac{1}{B}$

Descriptions.

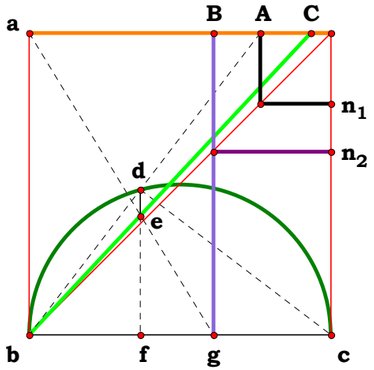
$bA := \sqrt{1 + A^2} \qquad bd := \frac{A}{bA} \qquad bf := \frac{A \cdot bd}{bA}$

$ef := \frac{(B - bf)}{B} \qquad C := \frac{bf}{ef} \qquad C = 0.933916$

Definitions.

$$C - \frac{A^2 \cdot B}{A^2 \cdot B - A^2 + B} = 0$$

$$C - \frac{1}{{n_1}^2 + 1 - n_2} = 0$$

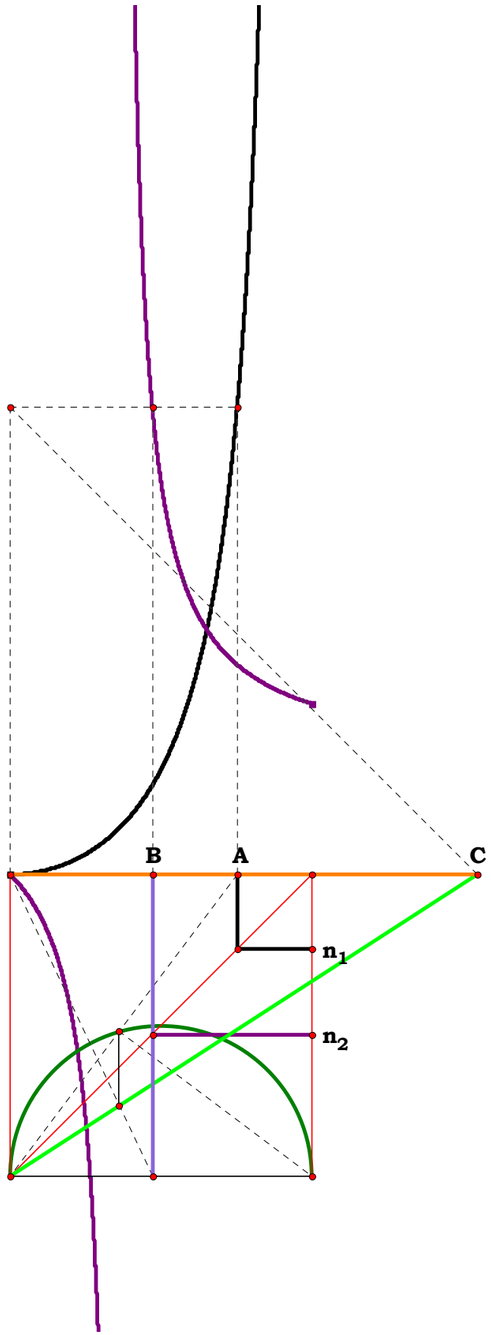


Unit = 1.00000
A = 0.76386
B = 0.60861
C = 0.93392

$n_1 = 1.30913$
$n_2 = 1.64308$

$\frac{A^2 \cdot B}{(A^2 \cdot B - A^2) + B} = 0.93392$

$\frac{1}{({n_1}^2 - n_2) + 1} = 0.93392$



Unit = 1.00000
A = 0.75133
B = 0.47068
C = 1.54578

$n_1 = 1.33098$
$n_2 = 2.12459$

$\frac{A^2 \cdot B}{(A^2 \cdot B - A^2) + B} = 1.54578$

$\frac{1}{({n_1}^2 - n_2) + 1} = 1.54578$

3OBT3R13

Given.

$A := .42112 \qquad B := .28677$

$n_1 := \frac{1}{A} \qquad n_2 := \frac{1}{B}$

Descriptions.

$bA := \sqrt{1 + A^2} \qquad be := \frac{A}{bA} \qquad bg := \frac{A \cdot be}{bA}$

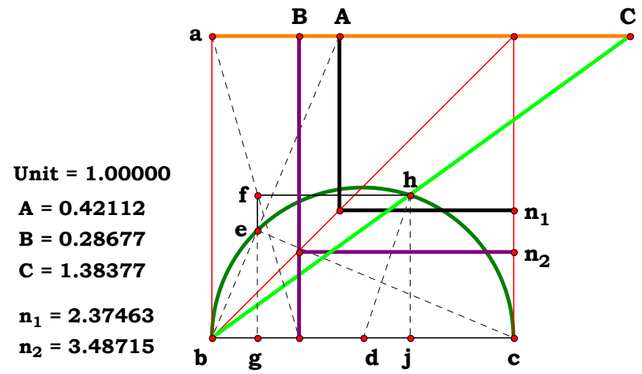
$gk := B - bg \qquad fg := \frac{gk}{B} \qquad dj := \sqrt{\left(\frac{1}{2}\right)^2 - fg^2}$

$bj := \frac{1}{2} + dj \qquad C := \frac{bj}{fg} \qquad C = 1.383745$

Definitions.

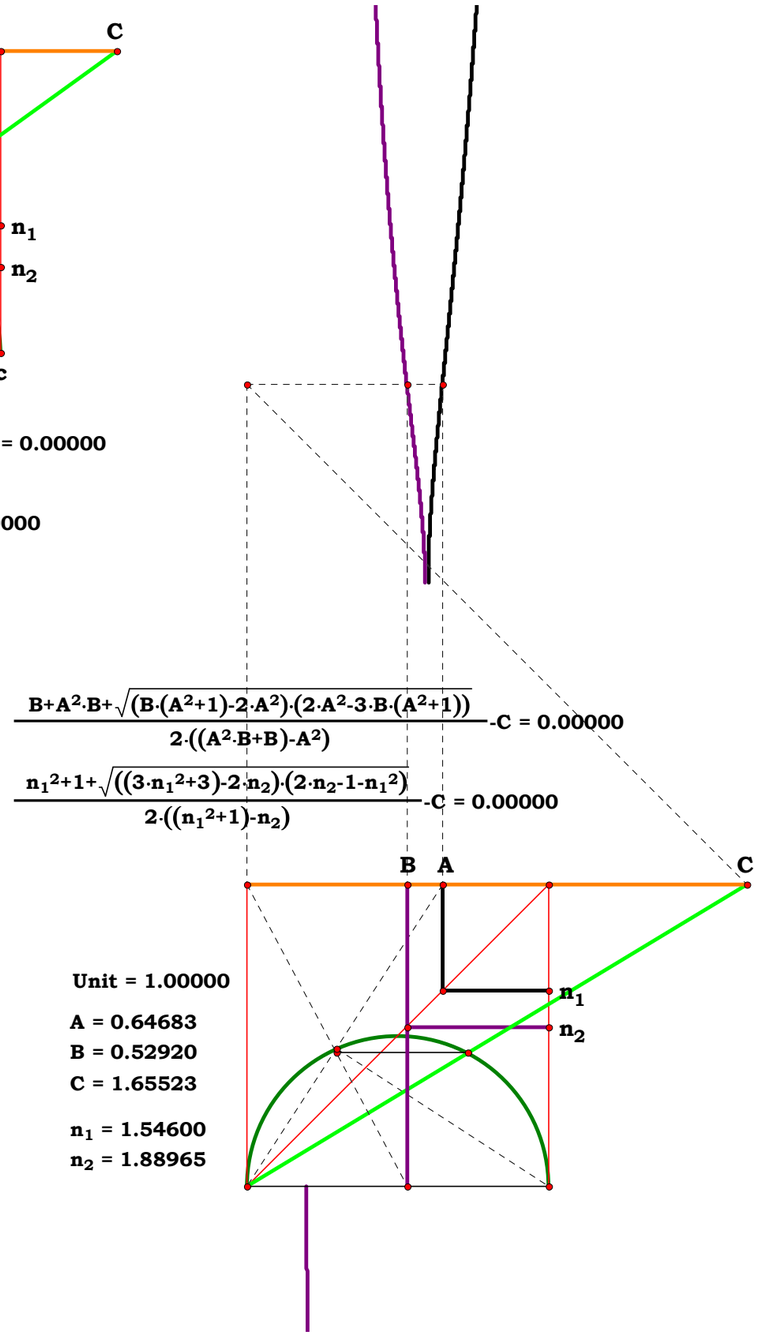
$$C - \frac{B + A^2 \cdot B + \sqrt{\left[B \cdot \left(A^2 + 1\right) - 2 \cdot A^2\right] \cdot \left[2 \cdot A^2 - 3 \cdot B \cdot \left(A^2 + 1\right)\right]}}{2 \cdot \left(B + A^2 \cdot B - A^2\right)} = 0$$

$$C - \frac{\sqrt{\left(3 \cdot {n_1}^2 + 3 - 2 \cdot n_2\right) \cdot \left(2 \cdot n_2 - 1 - {n_1}^2\right)} + {n_1}^2 + 1}{2 \cdot \left({n_1}^2 + 1 - n_2\right)} = 0$$



$$\frac{B+A^2\cdot B+\sqrt{(B\cdot(A^2+1)-2\cdot A^2)\cdot(2\cdot A^2-3\cdot B\cdot(A^2+1))}}{2\cdot((A^2\cdot B+B)-A^2)}-C = 0.00000$$

$$\frac{{n_1}^2+1+\sqrt{((3\cdot {n_1}^2+3)-2\cdot n_2)\cdot(2\cdot n_2-1-{n_1}^2)}}{2\cdot(({n_1}^2+1)-n_2)}-C = 0.00000$$



$$\frac{B+A^2\cdot B+\sqrt{(B\cdot(A^2+1)-2\cdot A^2)\cdot(2\cdot A^2-3\cdot B\cdot(A^2+1))}}{2\cdot((A^2\cdot B+B)-A^2)}-C = 0.00000$$

$$\frac{{n_1}^2+1+\sqrt{((3\cdot {n_1}^2+3)-2\cdot n_2)\cdot(2\cdot n_2-1-{n_1}^2)}}{2\cdot(({n_1}^2+1)-n_2)}-C = 0.00000$$

3OBT3R14

Given.

$A := .67609 \qquad B := .76745$

$C := .53832$

$n_1 := \frac{1}{A} \qquad n_2 := \frac{1}{B} \qquad n_3 := \frac{1}{C}$

Descriptions.

$bA := \sqrt{1 + A^2} \qquad bd := \frac{A}{bA} \qquad bf := \frac{A \cdot bd}{bA}$

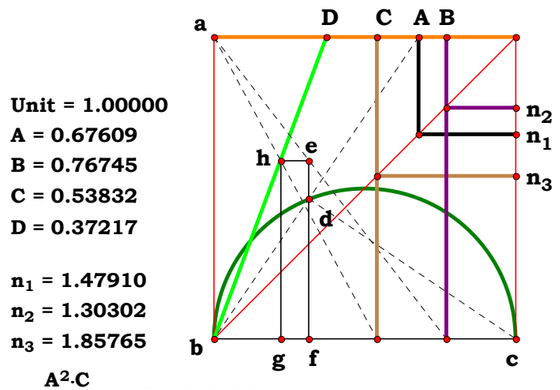
$ef := \frac{bf}{B} \qquad bg := \frac{bf \cdot C}{B} \qquad D := \frac{bg}{1 - ef}$

$D = 0.372176$

Definitions.

$$D - \frac{A^2 \cdot C}{B + A^2 \cdot B - A^2} = 0$$

$$D - \frac{n_2}{n_3 \cdot \left(n_1^{\,2} + 1 - n_2\right)} = 0$$

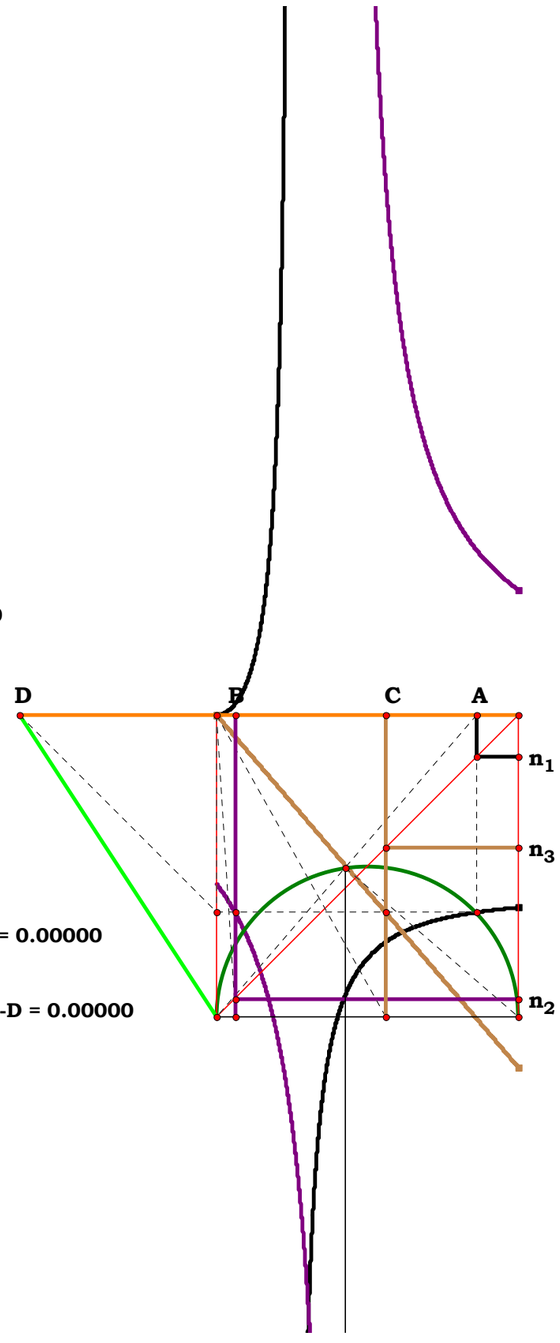


Unit = 1.00000
A = 0.67609
B = 0.76745
C = 0.53832
D = 0.37217

$n_1 = 1.47910$
$n_2 = 1.30302$
$n_3 = 1.85765$

$\frac{A^2 \cdot C}{(A^2 \cdot B + B) - A^2} - D = 0.00000$

$\frac{n_2}{n_3 \cdot ((n_1^{\,2} - n_2) + 1)} - D = 0.00000$



Unit = 1.00000
A = 0.86000
B = 0.06106
C = 0.55921
D = -0.65299

$n_1 = 1.16279$
$n_2 = 16.37836$
$n_3 = 1.78822$

$\frac{A^2 \cdot C}{(A^2 \cdot B + B) - A^2} - D = 0.00000$

$\frac{n_2}{n_3 \cdot ((n_1^{\,2} - n_2) + 1)} - D = 0.00000$

3OBT4R0

Given.

$A := .84328 \qquad B := .32857$

$n_1 := \frac{1}{A} \qquad n_2 := \frac{1}{B}$

Descriptions.

$bA := \sqrt{1 + A^2} \qquad bf := \frac{A}{bA}$

$fg := \frac{bf}{bA} \qquad C := B \cdot fg$

$C = 0.161927$

Definitions.

$$C - \frac{A \cdot B}{A^2 + 1} = 0$$

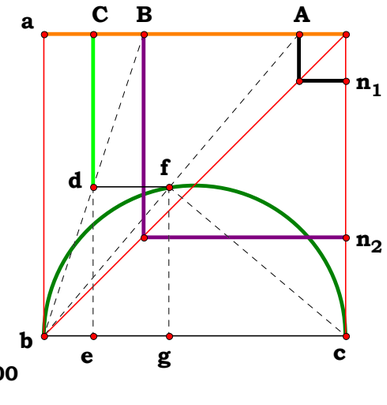
$$C - \frac{n_1}{n_2 \cdot \left(n_1^{\,2} + 1\right)} = 0$$

Unit = 1.00000
A = 0.84328
B = 0.32857
C = 0.16192

$n_1 = 1.18584$
$n_2 = 3.04353$

$\frac{A \cdot B}{A^2+1} - C = 0.00000$

$\frac{n_1}{n_2 \cdot (n_1^2+1)} - C = 0.00000$

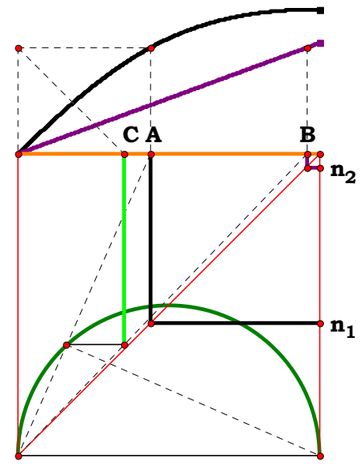


Unit = 1.00000
A = 0.43784
B = 0.95554
C = 0.35107

$n_1 = 2.28395$
$n_2 = 1.04653$

$\frac{A \cdot B}{A^2+1} - C = 0.00000$

$\frac{n_1}{n_2 \cdot (n_1^2+1)} - C = 0.00000$



3OBT4R1

Given.

$A := .80566 \quad B := .25751 \quad C := .63027$

$n_1 := \frac{1}{A} \quad n_2 := \frac{1}{B} \quad n_3 := \frac{1}{C}$

Descriptions.

$bA := \sqrt{1 + A^2} \qquad bd := \frac{A}{bA}$

$de := \frac{bd}{bA} \qquad bf := B \cdot de$

$hf := \sqrt{bf \cdot (1 - bf)} \qquad D := C \cdot hf$

$D = 0.209017$

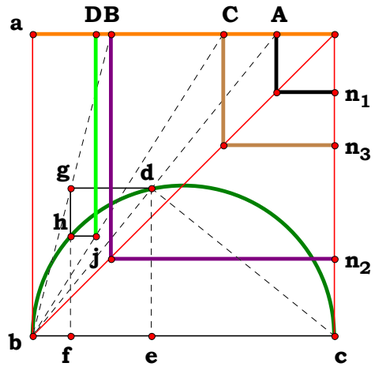
Definitions.

$$D - \frac{C \cdot \sqrt{A \cdot B \cdot \left(A^2 - A \cdot B + 1\right)}}{A^2 + 1} = 0$$

$$D - \frac{{n_1}^2 \cdot \sqrt{n_2 \cdot {n_1}^2 - n_1 + n_2}}{\sqrt{{n_1}^3 \cdot {n_2}^2} \cdot n_3 \cdot \left({n_1}^2 + 1\right)} = 0$$

Unit = 1.00000
A = 0.80566
B = 0.25751
C = 0.63027
D = 0.20902

n_1 = 1.24121
n_2 = 3.88337
n_3 = 1.58662

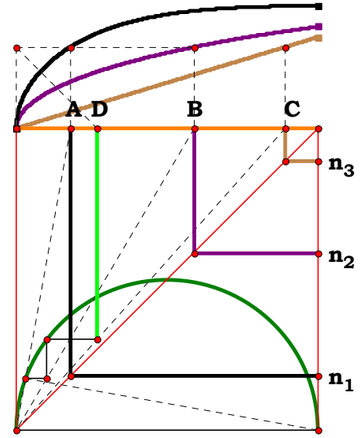


$\frac{C \cdot \sqrt{A \cdot B \cdot ((A^2 - A \cdot B) + 1)}}{A^2 + 1} - D = 0.00000$

$\frac{{n_1}^2 \cdot \sqrt{({n_1}^2 \cdot n_2 - n_1) + n_2}}{({n_1}^2 + 1) \cdot n_3 \cdot \sqrt{{n_1}^3 \cdot {n_2}^2}} - D = 0.00000$

Unit = 1.00000
A = 0.17869
B = 0.58771
C = 0.88942
D = 0.26891

n_1 = 5.59634
n_2 = 1.70151
n_3 = 1.12433



$\frac{C \cdot \sqrt{A \cdot B \cdot ((A^2 - A \cdot B) + 1)}}{A^2 + 1} - D = 0.00000$

$\frac{{n_1}^2 \cdot \sqrt{({n_1}^2 \cdot n_2 - n_1) + n_2}}{({n_1}^2 + 1) \cdot n_3 \cdot \sqrt{{n_1}^3 \cdot {n_2}^2}} - D = 0.00000$

3OBT4R2

Given.

$A := .43366 \qquad B := .84268$

$n_1 := \frac{1}{A} \qquad n_2 := \frac{1}{B}$

Descriptions.

$bA := \sqrt{1 + A^2} \qquad bg := \frac{A}{bA}$

$gh := \frac{bg}{bA} \qquad be := B \cdot gh$

$C := \frac{be}{1 - gh} \qquad C = 0.484406$

Definitions.

$C - \frac{A \cdot B}{A^2 - A + 1} = 0$

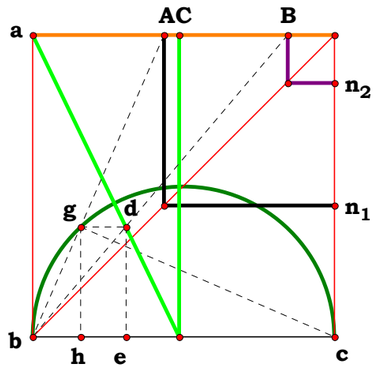
$C - \frac{n_1}{n_2 \cdot \left(n_1^{\,2} - n_1 + 1 \right)} = 0$

Unit = 1.00000
A = 0.43366
B = 0.84268
C = 0.48441

n_1 = 2.30596
n_2 = 1.18668

$\frac{A \cdot B}{(A^2 - A) + 1} - C = 0.00000$

$\frac{n_1}{n_2 \cdot ((n_1^2 - n_1) + 1)} - C = 0.00000$

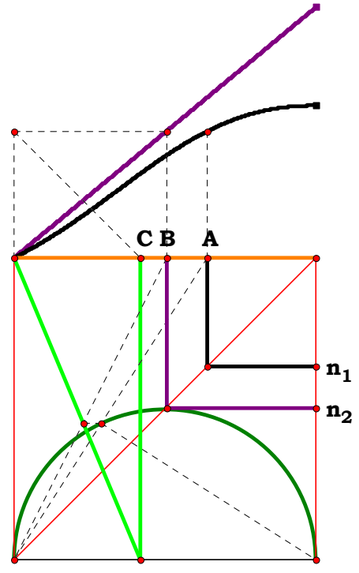


Unit = 1.00000
A = 0.63847
B = 0.50412
C = 0.41845

n_1 = 1.56624
n_2 = 1.98366

$\frac{A \cdot B}{(A^2 - A) + 1} - C = 0.00000$

$\frac{n_1}{n_2 \cdot ((n_1^2 - n_1) + 1)} - C = 0.00000$



3OBT4R3

Given.

$A := 4.15152 \qquad B := 3.19192$

$n_1 := \frac{1}{A} \qquad n_2 := \frac{1}{B}$

Descriptions.

$bA := \sqrt{1 + A^2} \qquad bg := \frac{A}{bA}$

$gh := \frac{bg}{bA} \qquad bf := B \cdot gh$

$df := \sqrt{bf \cdot (1 - bf)} \qquad C := \frac{bf}{df}$

$C = 1.630607$

Definitions.

$$C - \frac{(A \cdot B)^{\frac{1}{2}}}{\left(A^2 - A \cdot B + 1\right)^{\frac{1}{2}}} = 0$$

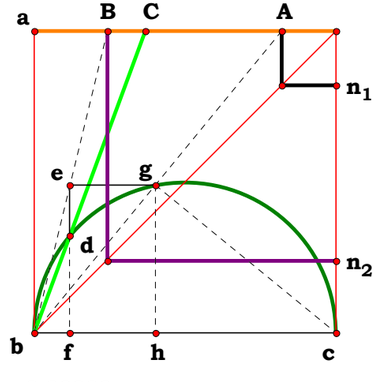
$$C - \frac{\sqrt{n_1^{\,2} \cdot n_2}}{\sqrt{n_1 \cdot n_2} \cdot \sqrt{n_2 \cdot n_1^{\,2} - n_1 + n_2}} = 0$$

Unit = 1.00000
A = 0.81820
B = 0.24079
C = 0.36579

n_1 = 1.22219
n_2 = 4.15302

$\frac{\sqrt{A \cdot B}}{\sqrt{(A^2 - A \cdot B) + 1}} - C = 0.00000$

$\frac{\sqrt{n_1^{\,2} \cdot n_2}}{\sqrt{n_1 \cdot n_2 \cdot ((n_1^{\,2} \cdot n_2 - n_1) + n_2)}} - C = 0.00000$

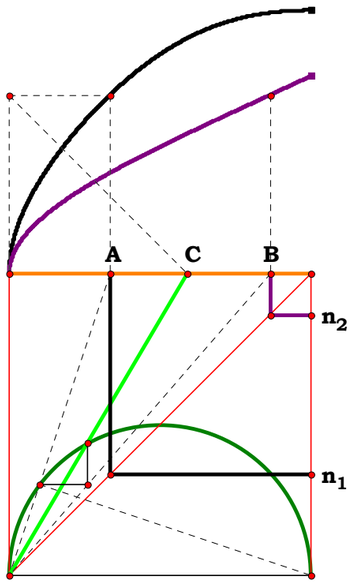


Unit = 1.00000
A = 0.33334
B = 0.86358
C = 0.59133

n_1 = 2.99992
n_2 = 1.15797

$\frac{\sqrt{A \cdot B}}{\sqrt{(A^2 - A \cdot B) + 1}} - C = 0.00000$

$\frac{\sqrt{n_1^{\,2} \cdot n_2}}{\sqrt{n_1 \cdot n_2 \cdot ((n_1^{\,2} \cdot n_2 - n_1) + n_2)}} - C = 0.00000$



3OBT4R4

Given.

$A := .71371 \qquad B := .54592$

$n_1 := \frac{1}{A} \qquad n_2 := \frac{1}{B}$

Descriptions.

$bA := \sqrt{1 + A^2} \qquad be := \frac{A}{bA}$

$bf := \frac{A \cdot be}{bA} \qquad df := \frac{bf}{B}$

$bj := \frac{bf}{1 - df} \qquad bk := \sqrt{1 + bj^2}$

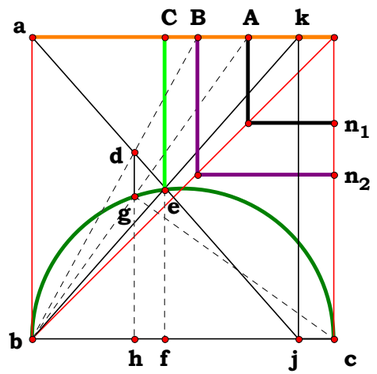
$bg := \frac{bj}{bk} \qquad C := \frac{bj \cdot bg}{bk}$

$C = 0.438587$

Definitions.

$$C - \frac{A^4 \cdot B^2}{A^4 \cdot [2 \cdot B \cdot (B - 1) + 1] + 2 \cdot A^2 \cdot B \cdot (B - 1) + B^2} = 0$$

$$C - \frac{1}{n_1{}^4 - 2 \cdot n_1{}^2 \cdot n_2 + 2 \cdot n_1{}^2 + n_2{}^2 - 2 \cdot n_2 + 2} = 0$$

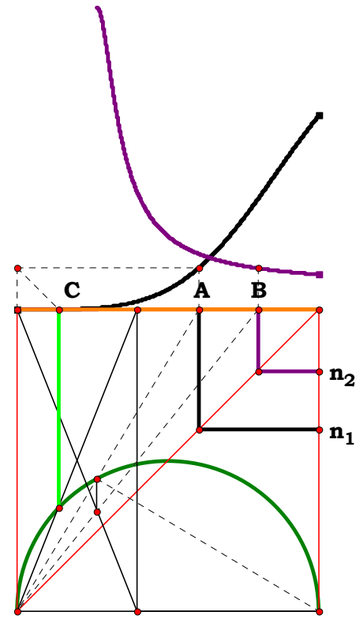


Unit = 1.00000
A = 0.71371
B = 0.54592
C = 0.43858

$n_1 = 1.40114$
$n_2 = 1.83178$

$$\frac{A^4 \cdot B^2}{A^4 \cdot (2 \cdot B \cdot (B-1)+1) + 2 \cdot A^2 \cdot B \cdot (B-1) + B^2} - C = 0.00000$$

$$\frac{1}{(((n_1{}^4 - 2 \cdot n_1{}^2 \cdot n_2) + 2 \cdot n_1{}^2 + n_2{}^2) - 2 \cdot n_2) + 2} - C = 0.00000$$



Unit = 1.00000
A = 0.60085
B = 0.79671
C = 0.13654

$n_1 = 1.66431$
$n_2 = 1.25517$

$$\frac{A^4 \cdot B^2}{A^4 \cdot (2 \cdot B \cdot (B-1)+1) + 2 \cdot A^2 \cdot B \cdot (B-1) + B^2} - C = 0.00000$$

$$\frac{1}{(((n_1{}^4 - 2 \cdot n_1{}^2 \cdot n_2) + 2 \cdot n_1{}^2 + n_2{}^2) - 2 \cdot n_2) + 2} - C = 0.00000$$

3OBT4R5

Given.

$A := .27064 \qquad B := .56682 \qquad C := .87270$

$n_1 := \frac{1}{A} \qquad n_2 := \frac{1}{B} \qquad n_3 := \frac{1}{C}$

Descriptions.

$bA := \sqrt{1 + A^2} \qquad bd := \frac{A}{bA}$

$de := \frac{bd}{bA} \qquad bh := B \cdot de$

$gh := \sqrt{bh \cdot (1 - bh)} \qquad bk := C \cdot gh$

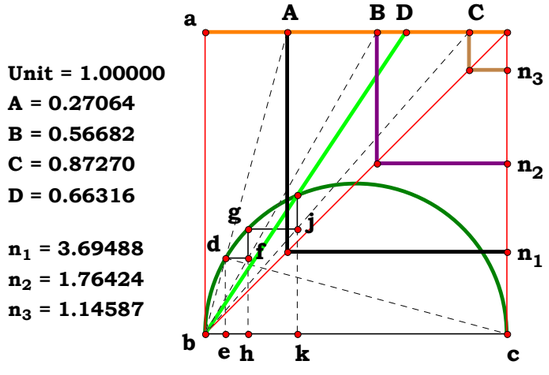
$gk := \sqrt{bk \cdot (1 - bk)} \qquad D := \frac{bk}{gk}$

$D = 0.663161$

Definitions.

$$D - \frac{C \cdot \sqrt{A \cdot B \cdot \left(A^2 - A \cdot B + 1\right)}}{\sqrt{A^2 \cdot B^2 \cdot C^2 + C \cdot \left(A^2 + 1\right) \cdot \sqrt{A \cdot B \cdot \left(A^2 - A \cdot B + 1\right)} - A \cdot B \cdot C^2 \cdot \left(A^2 + 1\right)}} = 0$$

$$D - \frac{\sqrt{{n_1}^2} \cdot \sqrt{{n_1}^3 \cdot {n_2}^2 \cdot {n_3}^2} \cdot \sqrt{n_2 \cdot {n_1}^2 - n_1 + n_2}}{n_3 \cdot \sqrt{{n_1}^3 \cdot {n_2}^2} \cdot \sqrt{\sqrt{{n_1}^3 \cdot {n_2}^2} \cdot \left(\sqrt{n_2 \cdot {n_1}^2 - n_1 + n_2} + {n_1}^2 \cdot \sqrt{n_2 \cdot {n_1}^2 - n_1 + n_2}\right) \cdot n_3 + {n_1}^3 - n_2 \cdot {n_1}^4 - n_2 \cdot {n_1}^2}} = 0$$

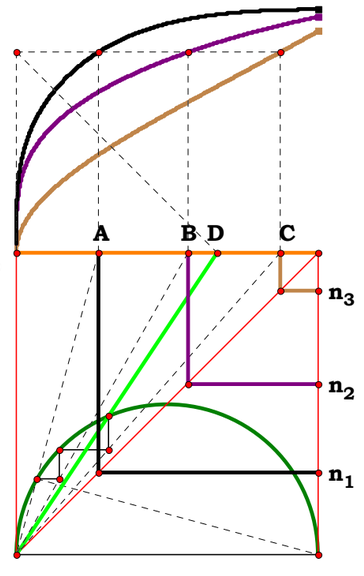


Unit = 1.00000
A = 0.27064
B = 0.56682
C = 0.87270
D = 0.66316

$n_1 = 3.69488$
$n_2 = 1.76424$
$n_3 = 1.14587$

$$\frac{C \cdot \sqrt{A \cdot B \cdot ((A^2 - A \cdot B) + 1)}}{\sqrt{(A^2 \cdot B^2 \cdot C^2 + C \cdot (A^2 + 1) \cdot \sqrt{A \cdot B \cdot ((A^2 - A \cdot B) + 1)}) - A \cdot B \cdot C^2 \cdot (A^2 + 1)}} - D = 0.00000$$

$$\frac{n_1 \cdot \sqrt{{n_1}^3 \cdot {n_2}^2 \cdot {n_3}^2} \cdot \sqrt{({n_1}^2 \cdot n_2 - n_1) + n_2}}{n_3 \cdot \sqrt{{n_1}^3 \cdot {n_2}^2} \cdot \sqrt{(\sqrt{{n_1}^3 \cdot {n_2}^2} \cdot (\sqrt{({n_1}^2 \cdot n_2 - n_1) + n_2} + {n_1}^2 \cdot \sqrt{({n_1}^2 \cdot n_2 - n_1) + n_2}) \cdot n_3 + {n_1}^3) - {n_1}^4 \cdot n_2 - {n_1}^2 \cdot n_2}} - D = 0.00000$$



Unit = 1.00000
A = 0.27064
B = 0.56682
C = 0.87270
D = 0.66316

$n_1 = 3.69488$
$n_2 = 1.76424$
$n_3 = 1.14587$

$$\frac{C \cdot \sqrt{A \cdot B \cdot ((A^2 - A \cdot B) + 1)}}{\sqrt{(A^2 \cdot B^2 \cdot C^2 + C \cdot (A^2 + 1) \cdot \sqrt{A \cdot B \cdot ((A^2 - A \cdot B) + 1)}) - A \cdot B \cdot C^2 \cdot (A^2 + 1)}} - D = 0.00000$$

$$\frac{n_1 \cdot \sqrt{{n_1}^3 \cdot {n_2}^2 \cdot {n_3}^2} \cdot \sqrt{({n_1}^2 \cdot n_2 - n_1) + n_2}}{n_3 \cdot \sqrt{{n_1}^3 \cdot {n_2}^2} \cdot \sqrt{(\sqrt{{n_1}^3 \cdot {n_2}^2} \cdot (\sqrt{({n_1}^2 \cdot n_2 - n_1) + n_2} + {n_1}^2 \cdot \sqrt{({n_1}^2 \cdot n_2 - n_1) + n_2}) \cdot n_3 + {n_1}^3) - {n_1}^4 \cdot n_2 - {n_1}^2 \cdot n_2}} - D = 0.00000$$

3OBT4R6

Given.

$A := .68445 \qquad B := .45396$

$n_1 := \frac{1}{A} \qquad n_3 := \frac{1}{B}$

Descriptions.

$bA := \sqrt{1 + A^2} \qquad bh := \frac{A}{bA}$

$hj := \frac{bh}{bA} \qquad be := B \cdot hj$

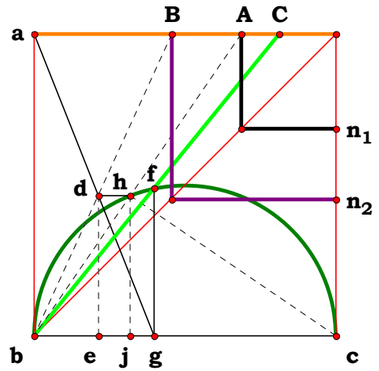
$bg := \frac{be}{1 - hj} \qquad fg := \sqrt{bg \cdot (1 - bg)}$

$C := \frac{bg}{fg} \qquad C = 0.810228$

Definitions.

$$C - \frac{A \cdot B}{\sqrt{A^3 \cdot B - A^2 \cdot B^2 - A^2 \cdot B + A \cdot B}} = 0$$

$$C - \frac{\sqrt{n_1^{\,3} \cdot n_3^{\,2}}}{n_1 \cdot n_3 \cdot \sqrt{n_3 - n_1 - n_1 \cdot n_3 + n_1^{\,2} \cdot n_3}} = 0$$

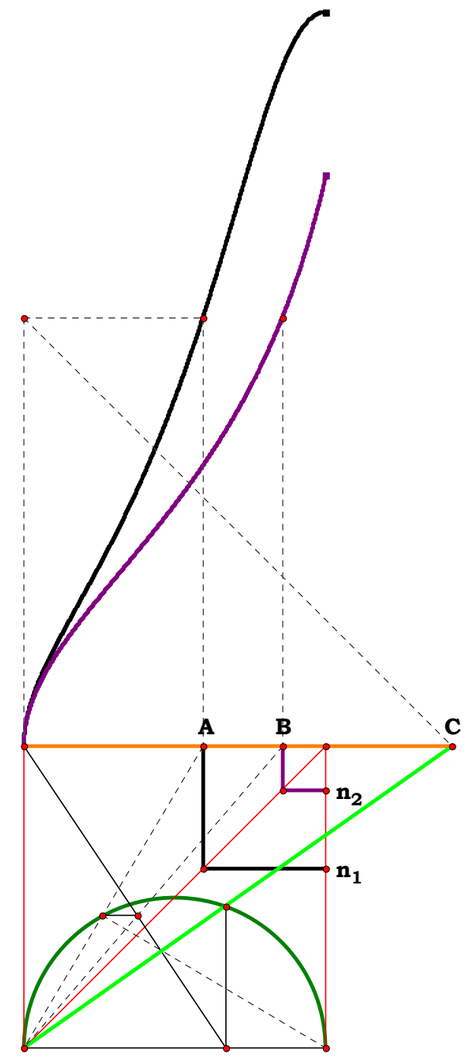


Unit = 1.00000
A = 0.68445
B = 0.45396
C = 0.81023

n_1 = 1.46103
n_2 = 2.20284

$\frac{A \cdot B}{\sqrt{(A^3 \cdot B - A^2 \cdot B^2 - A^2 \cdot B) + A \cdot B}} - C = 0.00000$

$\frac{\sqrt{n_1^{\,3} \cdot n_2^{\,2}}}{n_1 \cdot n_2 \cdot \sqrt{(n_1^{\,2} \cdot n_2 + n_2) - n_1 \cdot n_2 - n_1}} - C = 0.00000$



Unit = 1.00000
A = 0.59249
B = 0.85522
C = 1.41846

n_1 = 1.68779
n_2 = 1.16928

$\frac{A \cdot B}{\sqrt{(A^3 \cdot B - A^2 \cdot B^2 - A^2 \cdot B) + A \cdot B}} - C = 0.00000$

$\frac{\sqrt{n_1^{\,3} \cdot n_2^{\,2}}}{n_1 \cdot n_2 \cdot \sqrt{(n_1^{\,2} \cdot n_2 + n_2) - n_1 \cdot n_2 - n_1}} - C = 0.00000$

3OBT4R7

Given.

$A := .58413 \qquad B := .39544$

$n_1 := \frac{1}{A} \qquad n_2 := \frac{1}{B}$

Descriptions.

$bA := \sqrt{1 + A^2} \qquad be := \frac{A}{bA}$

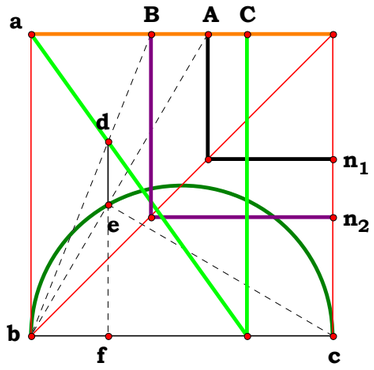
$bf := \frac{A \cdot be}{bA} \qquad df := \frac{bf}{B}$

$C := \frac{bf}{1 - df} \qquad C = 0.713299$

Definitions.

$$C - \frac{A^2 \cdot B}{A^2 \cdot B - A^2 + B} = 0$$

$$C - \frac{1}{n_1^{\,2} - n_2 + 1} = 0$$

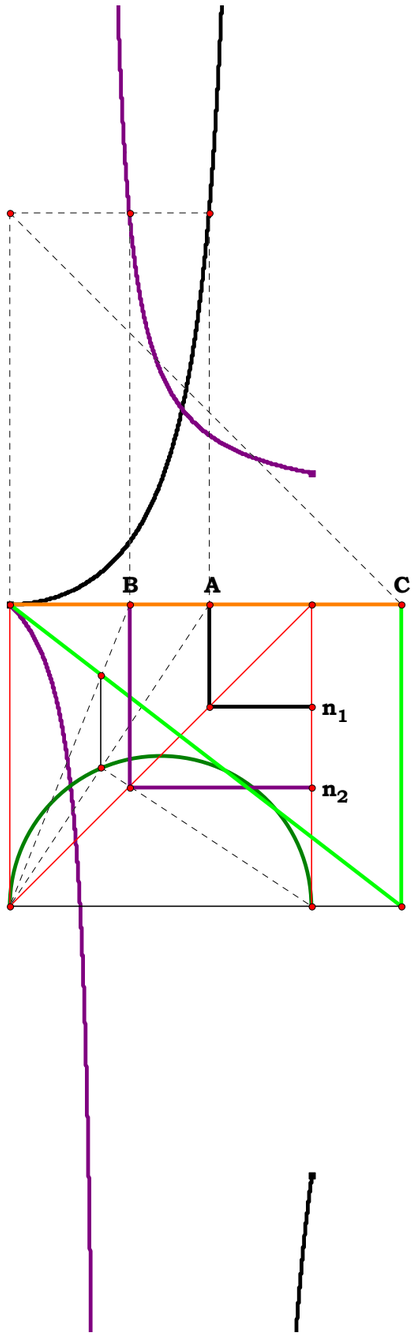


Unit = 1.00000
A = 0.58413
B = 0.39544
C = 0.71330

n_1 = 1.71194
n_2 = 2.52881

$\frac{A^2 \cdot B}{(A^2 \cdot B - A^2) + B} - C = 0.00000$

$\frac{1}{(n_1^{\,2} - n_2) + 1} - C = 0.00000$



Unit = 1.00000
A = 0.65937
B = 0.39544
C = 1.29656

n_1 = 1.51660
n_2 = 2.52881

$\frac{A^2 \cdot B}{(A^2 \cdot B - A^2) + B} - C = 0.00000$

$\frac{1}{(n_1^{\,2} - n_2) + 1} - C = 0.00000$

3OBT5R0

Given.

$A := .86000 \quad B := .76745 \quad C := .67625$

$n_1 := \frac{1}{A} \quad n_2 := \frac{1}{B} \quad n_3 := \frac{1}{C}$

Descriptions.

$bA := \sqrt{1 + A^2} \quad bf := \frac{A}{bA}$

$bh := \frac{A \cdot bf}{bA} \quad hj := C - bh$

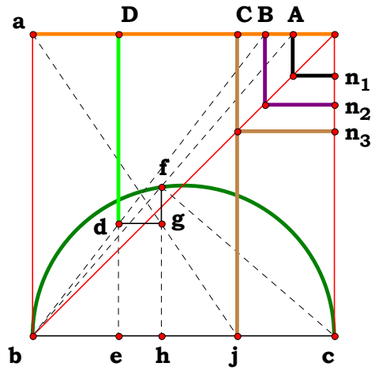
$gh := \frac{hj}{C} \quad D := B \cdot gh$

$D = 0.284958$

Definitions.

$$D - \frac{B \cdot \left(C + A^2 \cdot C - A^2\right)}{A^2 \cdot C + C} = 0$$

$$D - \frac{{n_1}^2 - n_3 + 1}{n_2 \cdot {n_1}^2 + n_2} = 0$$



Unit = 1.00000
A = 0.86000
B = 0.76745
C = 0.67625
D = 0.28496

$n_1 = 1.16279$
$n_2 = 1.30302$
$n_3 = 1.47874$

$\frac{B \cdot ((C + A^2 \cdot C) - A^2)}{A^2 \cdot C + C} - D = 0.00000$

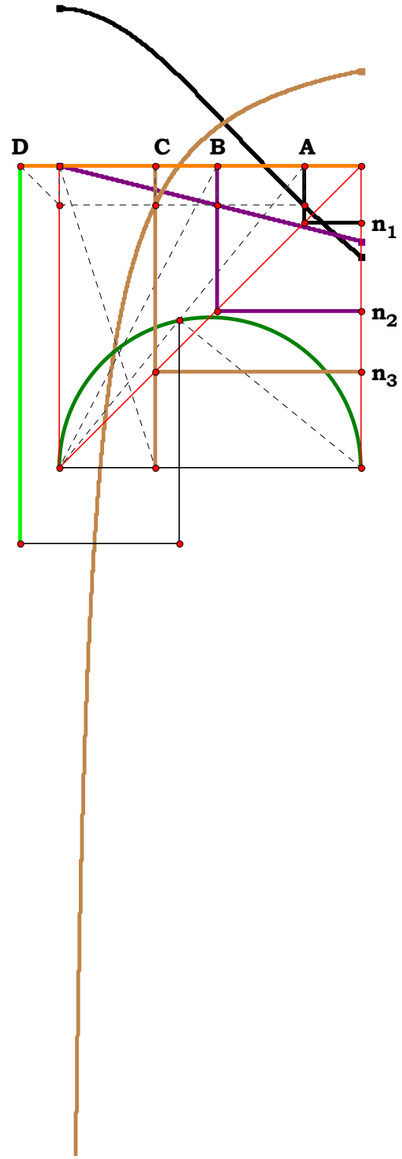
$\frac{(n_1^2 - n_3) + 1}{n_1^2 \cdot n_2 + n_2} - D = 0.00000$

Unit = 1.00000
A = 0.80984
B = 0.52084
C = 0.31678
D = -0.13037

$n_1 = 1.23481$
$n_2 = 1.91998$
$n_3 = 3.15672$

$\frac{B \cdot ((C + A^2 \cdot C) - A^2)}{A^2 \cdot C + C} - D = 0.00000$

$\frac{(n_1^2 - n_3) + 1}{n_1^2 \cdot n_2 + n_2} - D = 0.00000$



3OBT5R1

Given.

$A := .35424 \quad B := .48740$

$C := .56339 \quad D := .82466$

$n_1 := \frac{1}{A} \quad n_2 := \frac{1}{B} \quad n_3 := \frac{1}{C} \quad n_4 := \frac{1}{D}$

Descriptions.

$bA := \sqrt{1 + A^2} \qquad bd := \frac{A}{bA}$

$be := \frac{A \cdot bd}{bA} \qquad eh := C - be$

$ef := \frac{eh}{C} \qquad bg := B \cdot ef$

$gj := \frac{(D - bg)}{D} \qquad E := \frac{bg}{gj}$

$E = 0.743332$

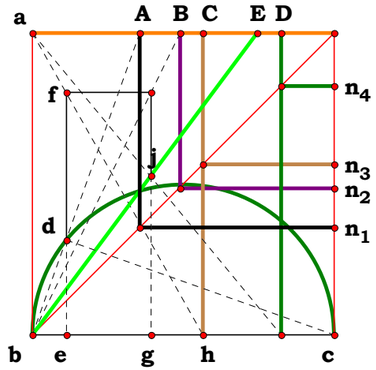
Definitions.

$$E - \frac{B \cdot C \cdot D \cdot \left(A^2 + 1\right) - A^2 \cdot B \cdot D}{\left(A^2 \cdot C + C\right) \cdot D - B \cdot \left(C + A^2 \cdot C - A^2\right)} = 0$$

$$E - \frac{{n_1}^2 - n_3 + 1}{n_2 - n_4 + n_3 \cdot n_4 + {n_1}^2 \cdot n_2 - {n_1}^2 \cdot n_4} = 0$$

Unit = 1.00000
A = 0.35424
B = 0.48740
C = 0.56339
D = 0.82466
E = 0.74333

$n_1 = 2.82293$
$n_2 = 2.05171$
$n_3 = 1.77496$
$n_4 = 1.21263$

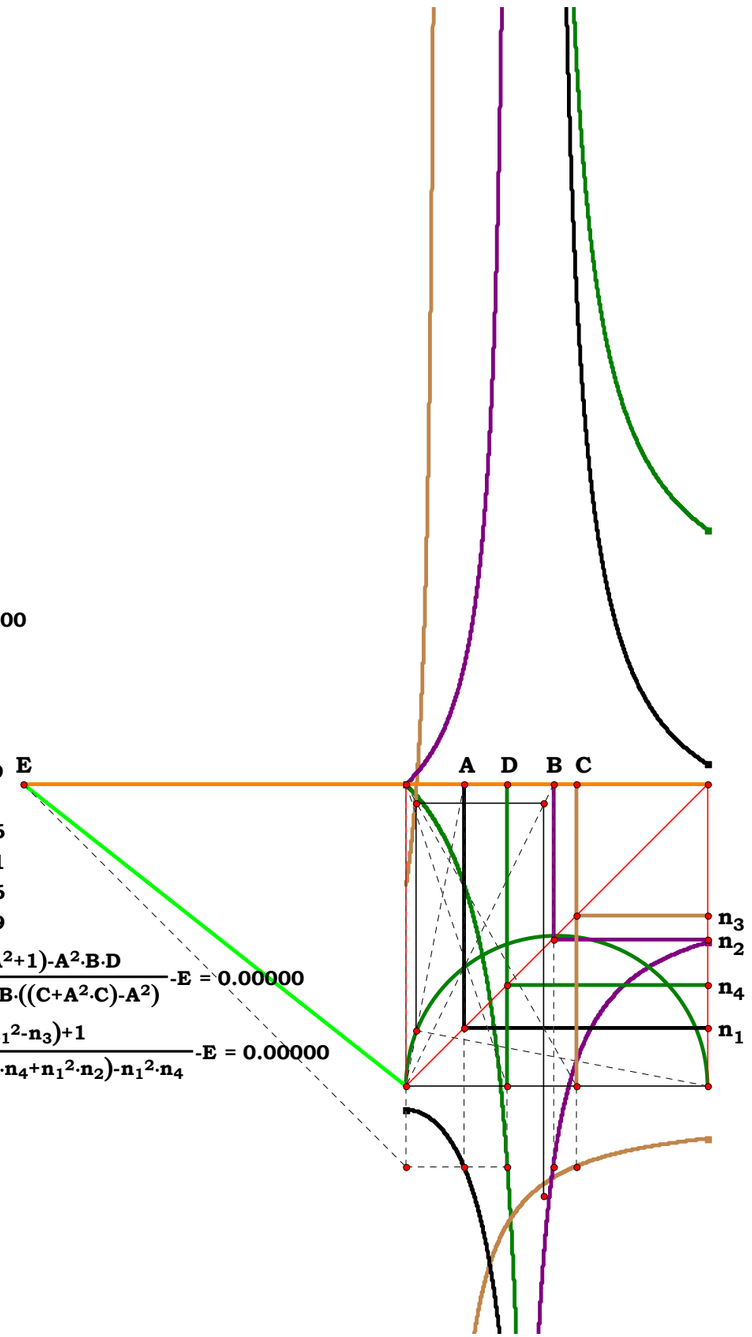


$$\frac{B \cdot C \cdot D \cdot (A^2+1) - A^2 \cdot B \cdot D}{(A^2 \cdot C + C) \cdot D - B \cdot ((C + A^2 \cdot C) - A^2)} - E = 0.00000$$

$$\frac{(n_1{}^2 - n_3) + 1}{((n_2 - n_4) + n_3 \cdot n_4 + n_1{}^2 \cdot n_2) - n_1{}^2 \cdot n_4} - E = 0.00000$$

Unit = 1.00000
A = 0.19123
B = 0.48740
C = 0.56339
D = 0.33562
E = -1.26449

$n_1 = 5.22936$
$n_2 = 2.05171$
$n_3 = 1.77496$
$n_4 = 2.97959$



$$\frac{B \cdot C \cdot D \cdot (A^2+1) - A^2 \cdot B \cdot D}{(A^2 \cdot C + C) \cdot D - B \cdot ((C + A^2 \cdot C) - A^2)} - E = 0.00000$$

$$\frac{(n_1{}^2 - n_3) + 1}{((n_2 - n_4) + n_3 \cdot n_4 + n_1{}^2 \cdot n_2) - n_1{}^2 \cdot n_4} - E = 0.00000$$

3OBT5R2

Given. $A := .86000$ $B := .76745$ $C := .67625$

$$n_1 := \frac{1}{A} \quad n_2 := \frac{1}{B} \quad n_3 := \frac{1}{C}$$

Descriptions.

$$bA := \sqrt{1 + A^2} \qquad bg := \frac{A}{bA}$$

$$bj := \frac{A \cdot bg}{bA} \qquad jk := C - bj$$

$$hj := \frac{jk}{C} \qquad bf := B \cdot hj$$

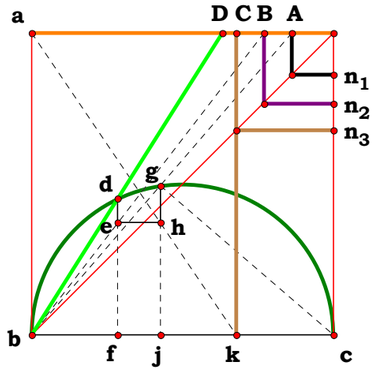
$$df := \sqrt{bf \cdot (1 - bf)} \qquad D := \frac{bf}{df}$$

$D = 0.631283$

Definitions.

$$D - \frac{B \cdot \left(C + A^2 \cdot C - A^2\right)}{\sqrt{B \cdot \left(C + A^2 \cdot C - A^2\right) \cdot \left(C + A^2 \cdot B + A^2 \cdot C - B \cdot C - A^2 \cdot B \cdot C\right)}} = 0$$

$$D - \frac{\sqrt{{n_1}^4 \cdot {n_2}^2 \cdot {n_3}^2} \cdot \left({n_1}^2 - n_3 + 1\right)}{{n_1}^2 \cdot n_2 \cdot n_3 \cdot \sqrt{\left({n_1}^2 - n_3 + 1\right) \cdot \left(n_2 + n_3 - {n_1}^2 + {n_1}^2 \cdot n_2 - 1\right)}} = 0$$

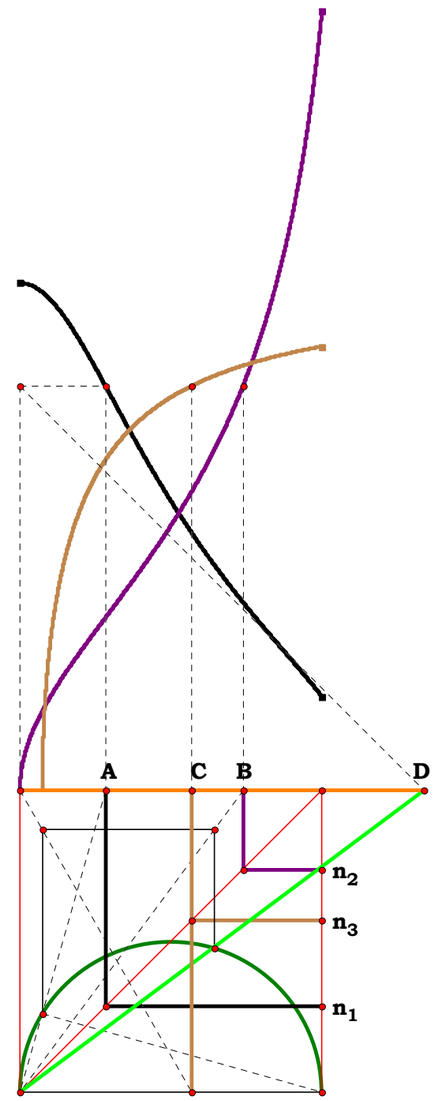


Unit = 1.00000
A = 0.86000
B = 0.76745
C = 0.67625
D = 0.63128

$n_1 = 1.16279$
$n_2 = 1.30302$
$n_3 = 1.47874$

$$\frac{B \cdot ((A^2 \cdot C + C) - A^2)}{\sqrt{B \cdot ((A^2 \cdot C + C) - A^2) \cdot (((A^2 \cdot B + A^2 \cdot C) - A^2 \cdot B \cdot C - B \cdot C) + C)}} - D = 0.00000$$

$$\frac{\sqrt{n_1^4 \cdot n_2^2 \cdot n_3^2} \cdot ((n_1^2 - n_3) + 1)}{n_1^2 \cdot n_2 \cdot n_3 \cdot \sqrt{((n_1^2 - n_3) + 1) \cdot ((n_1^2 \cdot n_2 + n_2 + n_3) - n_1^2 - 1)}} - D = 0.00000$$



Unit = 1.00000
A = 0.28318
B = 0.73819
C = 0.56757
D = 1.33807

$n_1 = 3.53127$
$n_2 = 1.35467$
$n_3 = 1.76188$

$$\frac{B \cdot ((A^2 \cdot C + C) - A^2)}{\sqrt{B \cdot ((A^2 \cdot C + C) - A^2) \cdot (((A^2 \cdot B + A^2 \cdot C) - A^2 \cdot B \cdot C - B \cdot C) + C)}} - D = 0.00000$$

$$\frac{\sqrt{n_1^4 \cdot n_2^2 \cdot n_3^2} \cdot ((n_1^2 - n_3) + 1)}{n_1^2 \cdot n_2 \cdot n_3 \cdot \sqrt{((n_1^2 - n_3) + 1) \cdot ((n_1^2 \cdot n_2 + n_2 + n_3) - n_1^2 - 1)}} - D = 0.00000$$

3OBT5R3

Given. $A := .86000$

$B := .57518$ $C := .67625$

$n_1 := \frac{1}{A}$ $n_2 := \frac{1}{B}$ $n_3 := \frac{1}{C}$

Descriptions.

$bA := \sqrt{1 + A^2}$ $bh := \frac{A}{bA}$

$hj := \frac{bh}{bA}$ $bg := B \cdot hj$

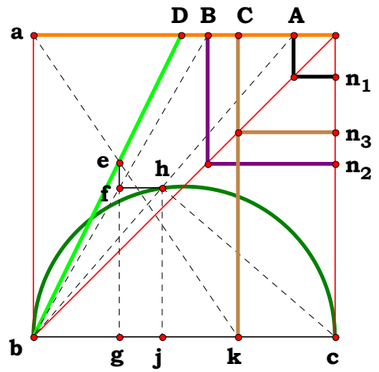
$eg := \frac{C - bg}{C}$ $D := \frac{bg}{eg}$

$D = 0.490664$

Definitions.

$$D - \frac{A \cdot B \cdot C}{A^2 \cdot C - A \cdot B + C} = 0$$

$$D - \frac{n_1}{n_2 \cdot {n_1}^2 - n_3 \cdot n_1 + n_2} = 0$$

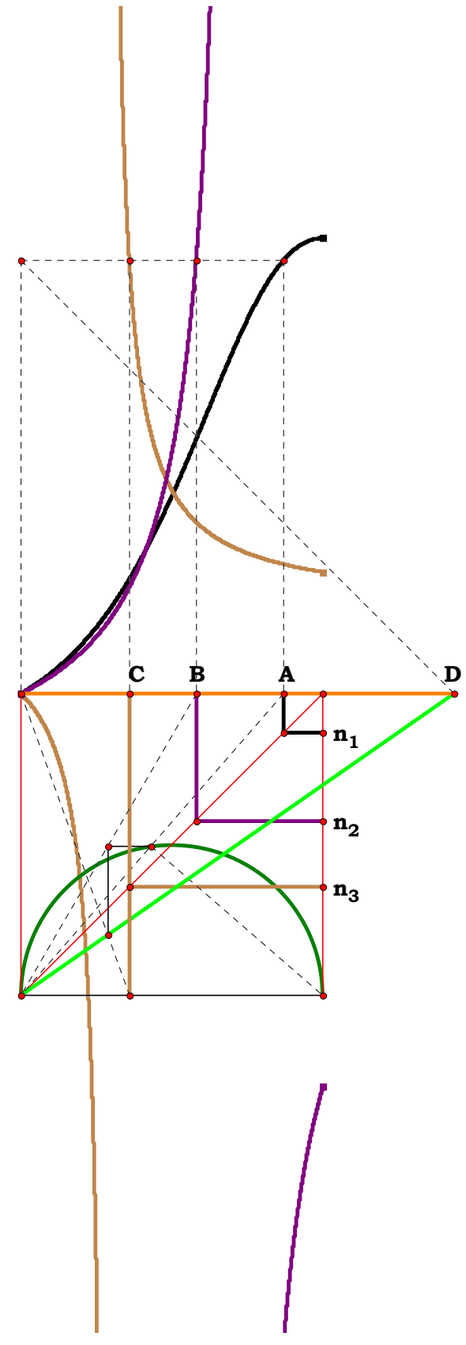


Unit = 1.00000
A = 0.86000
B = 0.57518
C = 0.67625
D = 0.49066

$n_1 = 1.16279$
$n_2 = 1.73860$
$n_3 = 1.47874$

$\frac{A \cdot B \cdot C}{(A^2 \cdot C - A \cdot B) + C} - D = 0.00000$

$\frac{n_1}{(n_1^2 \cdot n_2 - n_1 \cdot n_3) + n_2} - D = 0.00000$



Unit = 1.00000
A = 0.86836
B = 0.57936
C = 0.35858
D = 1.43308

$n_1 = 1.15160$
$n_2 = 1.72606$
$n_3 = 2.78876$

$\frac{A \cdot B \cdot C}{(A^2 \cdot C - A \cdot B) + C} - D = 0.00000$

$\frac{n_1}{(n_1^2 \cdot n_2 - n_1 \cdot n_3) + n_2} - D = 0.00000$

3OBT5R4

Given. $A := .86000$ $B := .72147$ $C := .46308$

$$n_1 := \frac{1}{A} \quad n_2 := \frac{1}{B} \quad n_3 := \frac{1}{C}$$

Descriptions.

$$bh := \frac{A \cdot C}{A + C} \qquad gh := \frac{bh}{A}$$

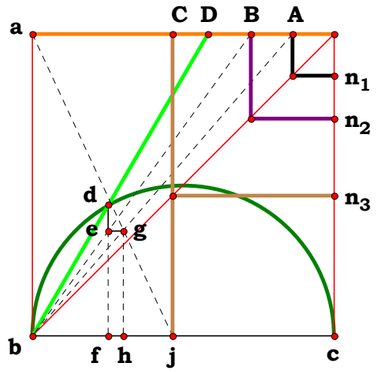
$$bf := B \cdot gh \qquad df := \sqrt{bf \cdot (1 - bf)}$$

$$D := \frac{bf}{df} \qquad D = 0.581223$$

Definitions.

$$D - \frac{B \cdot C}{\sqrt{B \cdot C \cdot (A + C - B \cdot C)}} = 0$$

$$D - \frac{\sqrt{n_1 \cdot {n_2}^2 \cdot {n_3}^2}}{n_2 \cdot n_3 \cdot \sqrt{n_1 \cdot n_2 - n_1 + n_2 \cdot n_3}} = 0$$

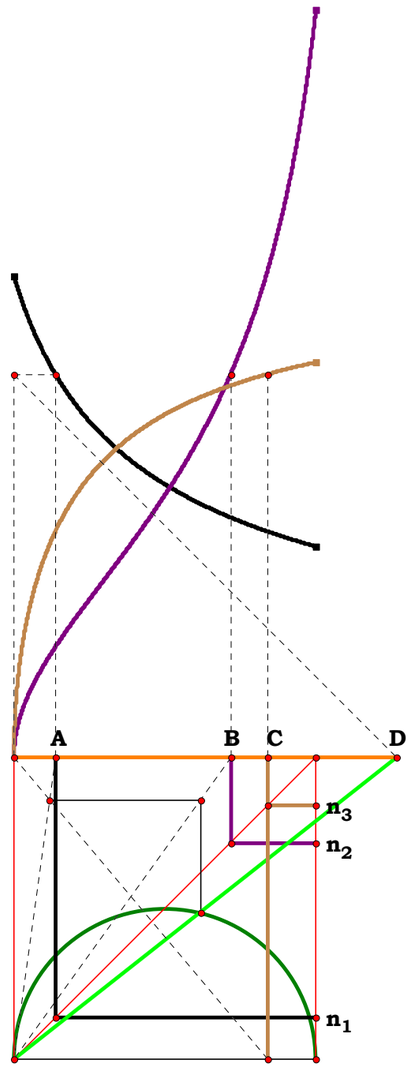


Unit = 1.00000
A = 0.86000
B = 0.72147
C = 0.46308
D = 0.58122

n_1 = 1.16279
n_2 = 1.38606
n_3 = 2.15946

$$\frac{B \cdot C}{\sqrt{B \cdot C \cdot ((A+C) - B \cdot C)}} - D = 0.00000$$

$$\frac{\sqrt{n_1 \cdot {n_2}^2 \cdot {n_3}^2}}{n_2 \cdot n_3 \cdot \sqrt{(n_1 \cdot n_2 - n_1) + n_2 \cdot n_3}} - D = 0.00000$$



Unit = 1.00000
A = 0.13689
B = 0.71729
C = 0.83926
D = 1.26844

n_1 = 7.30513
n_2 = 1.39414
n_3 = 1.19152

$$\frac{B \cdot C}{\sqrt{B \cdot C \cdot ((A+C) - B \cdot C)}} - D = 0.00000$$

$$\frac{\sqrt{n_1 \cdot {n_2}^2 \cdot {n_3}^2}}{n_2 \cdot n_3 \cdot \sqrt{(n_1 \cdot n_2 - n_1) + n_2 \cdot n_3}} - D = 0.00000$$

3OBT5R5

Given.

$A := .51307$ $B := .83432$ $C := .69715$

$n_1 := \frac{1}{A}$ $n_2 := \frac{1}{B}$ $n_3 := \frac{1}{C}$

Descriptions.

$bA := \sqrt{1 + A^2}$ $bh := \frac{A}{bA}$

$bj := \frac{A \cdot bh}{bA}$ $hj := \frac{bj}{A}$

$bk := \frac{bj}{1 - hj}$ $bf := \frac{B \cdot bk}{B + bk}$

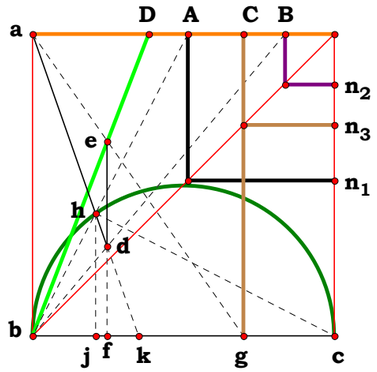
$fg := C - bf$ $ef := \frac{fg}{C}$

$D := \frac{bf}{ef}$ $D = 0.382567$

Definitions.

$$D - \frac{A^2 \cdot B \cdot C}{B \cdot C + A \cdot B \cdot C \cdot (A - 1) - A^2 \cdot (B - C)} = 0$$

$$D - \frac{1}{{n_1}^2 - n_1 + n_2 - n_3 + 1} = 0$$



Unit = 1.00000
A = 0.51307
B = 0.83432
C = 0.69715
D = 0.38258

n_1 = 1.94903
n_2 = 1.19857
n_3 = 1.43441

$\frac{A^2 \cdot B \cdot C}{(B \cdot C + A \cdot B \cdot C \cdot (A-1)) - A^2 \cdot (B-C)} - D = 0.00000$

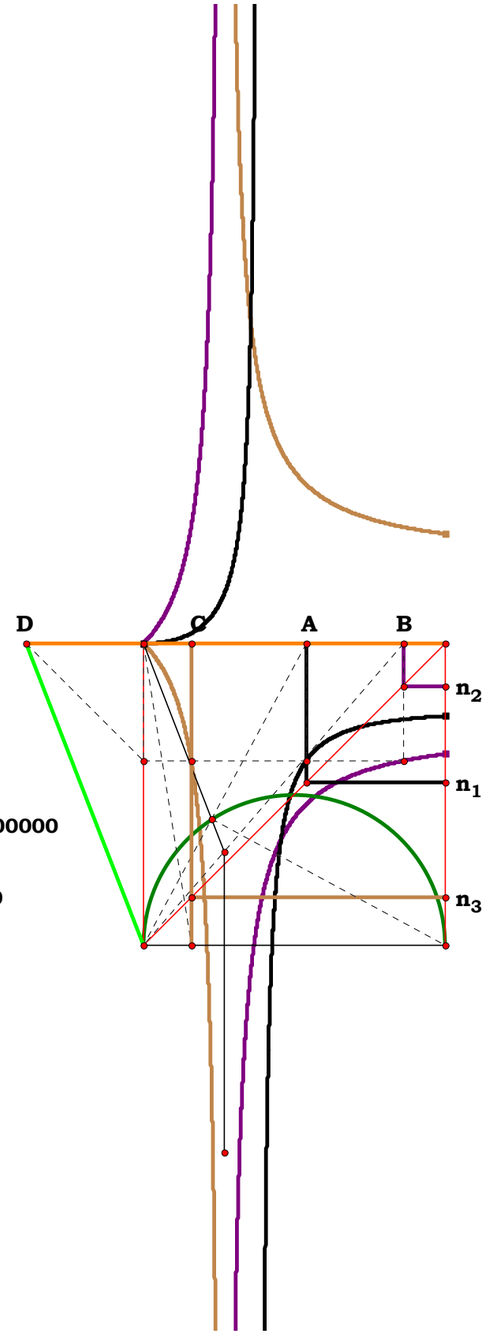
$\frac{1}{(((n_1^2 - n_1) + n_2) - n_3) + 1} - D = 0.00000$

Unit = 1.00000
A = 0.53815
B = 0.85940
C = 0.15795
D = -0.38868

n_1 = 1.85820
n_2 = 1.16360
n_3 = 6.33110

$\frac{A^2 \cdot B \cdot C}{(B \cdot C + A \cdot B \cdot C \cdot (A-1)) - A^2 \cdot (B-C)} - D = 0.00000$

$\frac{1}{(((n_1^2 - n_1) + n_2) - n_3) + 1} - D = 0.00000$



3OBT5R6

Given.

$A := .48382 \qquad B := .82597$

$C := .66789 \qquad D := .56969$

$n_1 := \frac{1}{A} \qquad n_2 := \frac{1}{B} \qquad n_3 := \frac{1}{C} \qquad n_4 := \frac{1}{D}$

Descriptions.

$bA := \sqrt{1 + A^2} \qquad bg := \frac{A}{bA}$

$de := \frac{bg}{bA} \qquad be := A \cdot de$

$bj := \frac{be}{1 - de} \qquad bf := \frac{B \cdot bj}{B + bj}$

$fh := \frac{C - bf}{C} \qquad E := D \cdot fh$

$E = 0.376528$

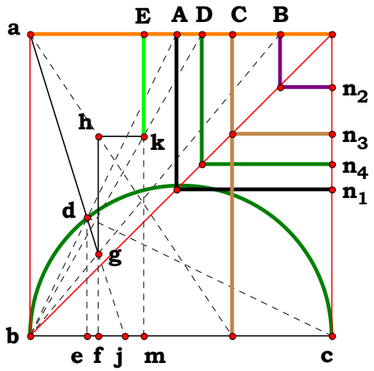
Definitions.

$$E - \frac{\left[C \cdot \left[A^2 + B + A \cdot B \cdot (A - 1)\right] - A^2 \cdot B\right] \cdot D}{B \cdot C \cdot \left(A^2 - A + 1\right) + A^2 \cdot C} = 0$$

$$E - \frac{{n_1}^2 - n_1 + n_2 - n_3 + 1}{n_4 \cdot \left({n_1}^2 - n_1 + n_2 + 1\right)} = 0$$

Unit = 1.00000
A = 0.48382
B = 0.82597
C = 0.66789
D = 0.56969
E = 0.37653

$n_1 = 2.06690$
$n_2 = 1.21070$
$n_3 = 1.49725$
$n_4 = 1.75535$



$$\frac{D \cdot (C \cdot (A^2+B+A \cdot B \cdot (A-1)) - A^2 \cdot B)}{A^2 \cdot C + B \cdot C \cdot ((A^2-A)+1)} - E = 0.00000$$

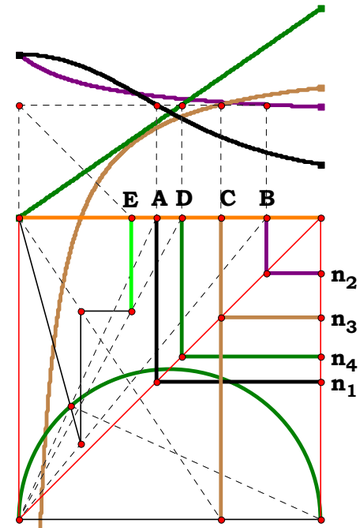
$$\frac{(((n_1{}^2 - n_1) + n_2) - n_3) + 1}{n_4 \cdot ((n_1{}^2 - n_1) + n_2 + 1)} - E = 0.00000$$

Unit = 1.00000
A = 0.45456
B = 0.81761
C = 0.66789
D = 0.54043
E = 0.37403

$n_1 = 2.19994$
$n_2 = 1.22308$
$n_3 = 1.49725$
$n_4 = 1.85039$

$$\frac{D \cdot (C \cdot (A^2+B+A \cdot B \cdot (A-1)) - A^2 \cdot B)}{A^2 \cdot C + B \cdot C \cdot ((A^2-A)+1)} - E = 0.00000$$

$$\frac{(((n_1{}^2 - n_1) + n_2) - n_3) + 1}{n_4 \cdot ((n_1{}^2 - n_1) + n_2 + 1)} - E = 0.00000$$



3OBT5R7

Given. $A := .86000$ $B := .60443$ $C := .67625$

$$n_1 := \frac{1}{A} \quad n_2 := \frac{1}{B} \quad n_3 := \frac{1}{C}$$

Descriptions.

$$bA := \sqrt{1 + A^2} \qquad bg := \frac{A}{bA}$$

$$gh := \frac{bg}{bA} \qquad fj := C \cdot gh$$

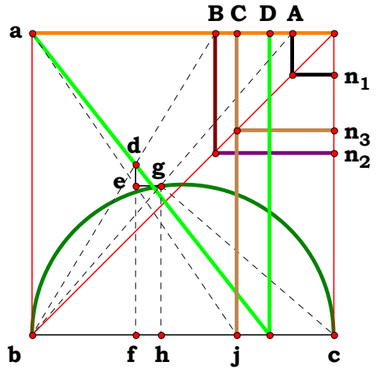
$$bf := C - fj \qquad df := \frac{bf}{B}$$

$$D := \frac{bf}{1 - df} \qquad D = 0.787349$$

Definitions.

$$D - \frac{B \cdot C \cdot \left(A^2 - A + 1\right)}{\left(A^2 + 1\right) \cdot B - C \cdot \left(A^2 - A + 1\right)} = 0$$

$$D - \frac{{n_1}^2 - n_1 + 1}{n_3 - n_2 + n_1 \cdot n_2 - {n_1}^2 \cdot n_2 + {n_1}^2 \cdot n_3} = 0$$



Unit = 1.00000
A = 0.86000
B = 0.60443
C = 0.67625
D = 0.78734

n_1 = 1.16279
n_2 = 1.65444
n_3 = 1.47874

$$\frac{B \cdot C \cdot ((A^2 - A) + 1)}{(A^2 + 1) \cdot B - C \cdot ((A^2 - A) + 1)} - D = 0.00000$$

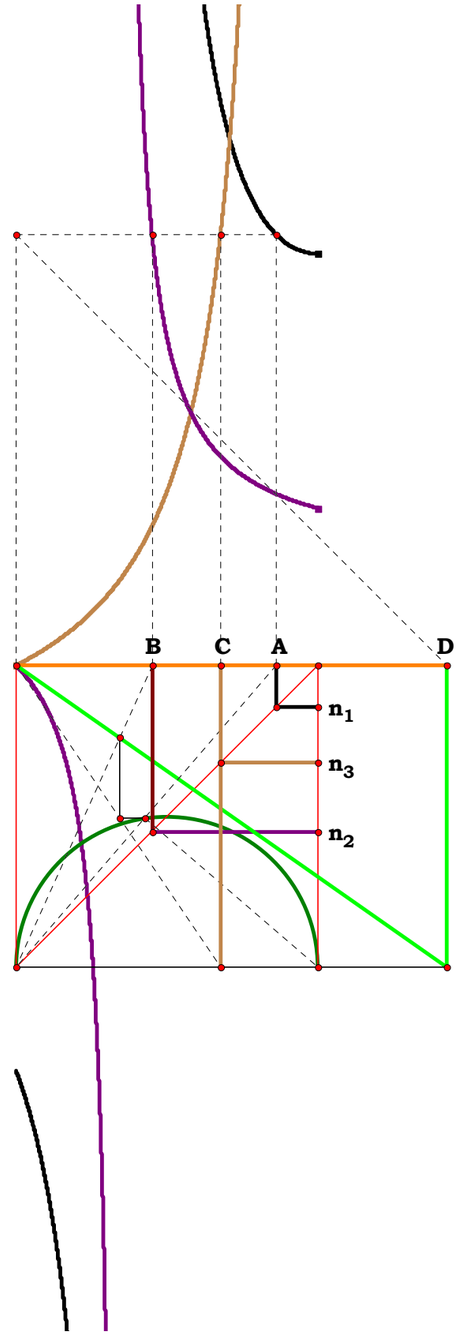
$$\frac{(n_1^2 - n_1) + 1}{(((n_3 - n_2) + n_1 \cdot n_2) - n_1^2 \cdot n_2) + n_1^2 \cdot n_3} - D = 0.00000$$

Unit = 1.00000
A = 0.86000
B = 0.44978
C = 0.67625
D = 1.42606

n_1 = 1.16279
n_2 = 2.22331
n_3 = 1.47874

$$\frac{B \cdot C \cdot ((A^2 - A) + 1)}{(A^2 + 1) \cdot B - C \cdot ((A^2 - A) + 1)} - D = 0.00000$$

$$\frac{(n_1^2 - n_1) + 1}{(((n_3 - n_2) + n_1 \cdot n_2) - n_1^2 \cdot n_2) + n_1^2 \cdot n_3} - D = 0.00000$$



3OBT5R8

Given.

$A := .86418$ $B := .46232$ $C := .31678$ $D := .54461$ $E := .70205$

$$n_1 := \frac{1}{A} \quad n_2 := \frac{1}{B} \quad n_3 := \frac{1}{C} \quad n_4 := \frac{1}{D} \quad n_5 := \frac{1}{E}$$

Descriptions.

$$bA := \sqrt{1 + A^2} \qquad bd := \frac{A}{bA}$$

$$be := \frac{A \cdot bd}{bA} \qquad fg := \frac{be}{be + B}$$

$$bm := C \cdot fg \qquad bp := \frac{bm}{1 - fg}$$

$$bj := \frac{bp \cdot D}{bp + D} \qquad hj := \frac{E - bj}{E}$$

$$F := \frac{bj}{hj} \qquad F = 0.261407$$

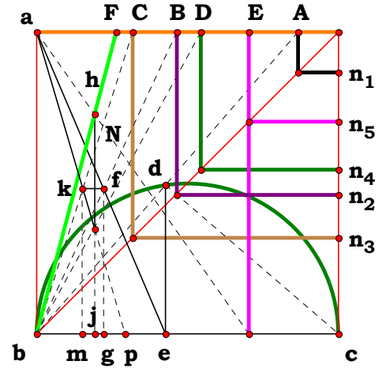
Definitions.

$$F - \frac{A^2 \cdot C \cdot D \cdot E}{A^2 \cdot (C \cdot E - C \cdot D + B \cdot D \cdot E) + B \cdot D \cdot E} = 0$$

$$F - \frac{n_2}{n_3 \cdot n_1^{\,2} + n_3 + n_2 \cdot n_4 - n_2 \cdot n_5} = 0$$

Unit = 1.00000
A = 0.86418
B = 0.46232
C = 0.31678
D = 0.54461
E = 0.70205
F = 0.26141

n_1 = 1.15717
n_2 = 2.16300
n_3 = 3.15672
n_4 = 1.83618
n_5 = 1.42440

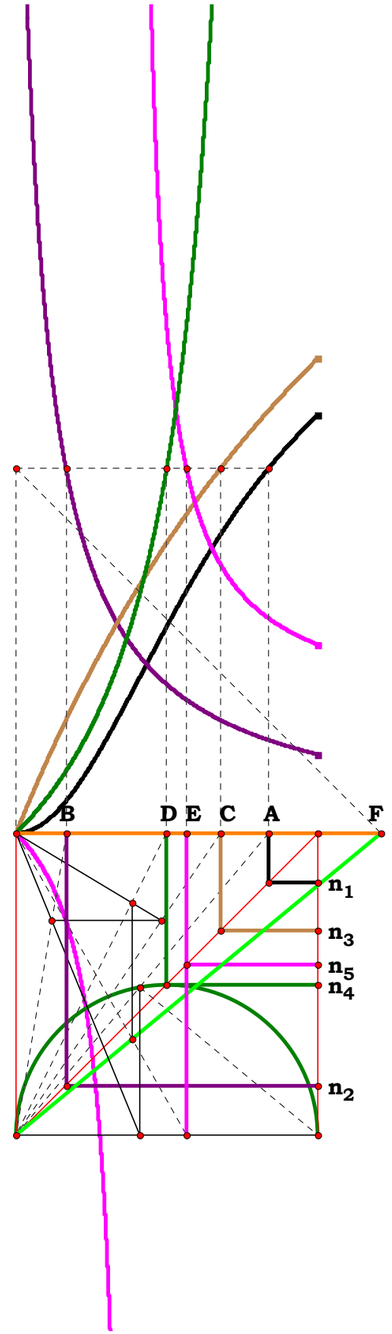


$$\frac{A^2 \cdot C \cdot D \cdot E}{A^2 \cdot ((C \cdot E - C \cdot D) + B \cdot D \cdot E) + B \cdot D \cdot E} - F = 0.00000$$

$$\frac{n_2}{((n_1^{\,2} \cdot n_3 + n_2 \cdot n_4) - n_2 \cdot n_5) + n_3} - F = 0.00000$$

Unit = 1.00000
A = 0.83492
B = 0.16555
C = 0.67625
D = 0.49863
E = 0.56412
F = 1.20656

n_1 = 1.19772
n_2 = 6.04040
n_3 = 1.47874
n_4 = 2.00550
n_5 = 1.77269



$$\frac{A^2 \cdot C \cdot D \cdot E}{A^2 \cdot ((C \cdot E - C \cdot D) + B \cdot D \cdot E) + B \cdot D \cdot E} - F = 0.00000$$

$$\frac{n_2}{((n_1^{\,2} \cdot n_3 + n_2 \cdot n_4) - n_2 \cdot n_5) + n_3} - F = 0.00000$$

3OBT5R9

Given.

$A := .82656 \qquad B := .72565$

$C := .54250 \qquad D := .59477$

$n_1 := \frac{1}{A} \qquad n_2 := \frac{1}{B} \qquad n_3 := \frac{1}{C} \qquad n_4 := \frac{1}{D}$

Descriptions.

$bA := \sqrt{1 + A^2} \qquad bd := \frac{A}{bA}$

$dh := \frac{bd}{bA} \qquad bh := \frac{A \cdot bd}{bA}$

$bm := \frac{bh}{1 - dh} \qquad bg := \frac{B \cdot bm}{B + bm}$

$eg := \frac{C - bg}{C} \qquad bk := D \cdot eg$

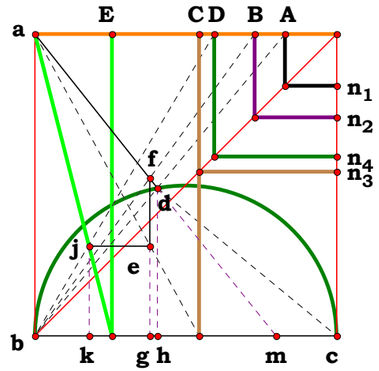
$E := \frac{bk}{1 - eg} \qquad E = 0.254458$

Definitions.

$$E - \frac{D \cdot \left[C \cdot \left(B + A^2 \cdot B + A^2 - A \cdot B\right) - A^2 \cdot B\right]}{A^2 \cdot B} = 0$$

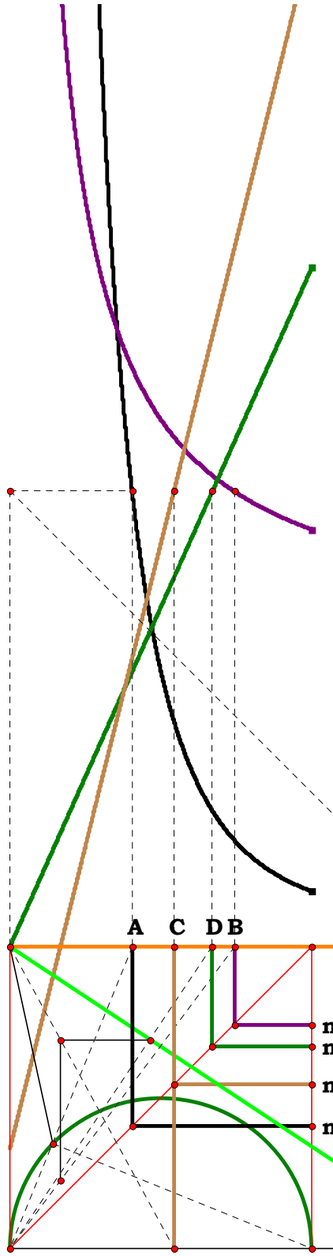
$$E - \frac{{n_1}^2 - n_1 + n_2 - n_3 + 1}{n_3 \cdot n_4} = 0$$

Unit = 1.00000
A = 0.82656
B = 0.72565
C = 0.54250
D = 0.59477
E = 0.25445
n_1 = 1.20983
n_2 = 1.37808
n_3 = 1.84333
n_4 = 1.68133

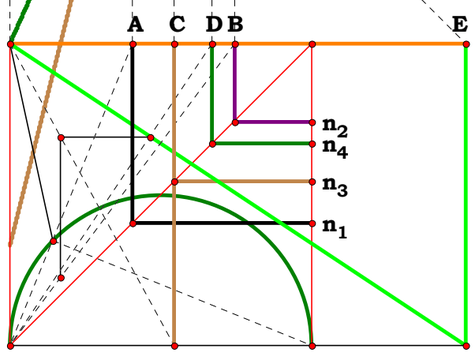


$$\frac{D \cdot (C \cdot ((B + A^2 \cdot B + A^2) - A \cdot B) - A^2 \cdot B)}{A^2 \cdot B} - E = 0.00000$$

$$\frac{(((n_1{}^2 - n_1) + n_2) - n_3) + 1}{n_3 \cdot n_4} - E = 0.00000$$



Unit = 1.00000
A = 0.40440
B = 0.74237
C = 0.54250
D = 0.67000
E = 1.50684
n_1 = 2.47280
n_2 = 1.34704
n_3 = 1.84333
n_4 = 1.49253



$$\frac{D \cdot (C \cdot ((B + A^2 \cdot B + A^2) - A \cdot B) - A^2 \cdot B)}{A^2 \cdot B} - E = 0.00000$$

$$\frac{(((n_1{}^2 - n_1) + n_2) - n_3) + 1}{n_3 \cdot n_4} - E = 0.00000$$

3OBT5R10

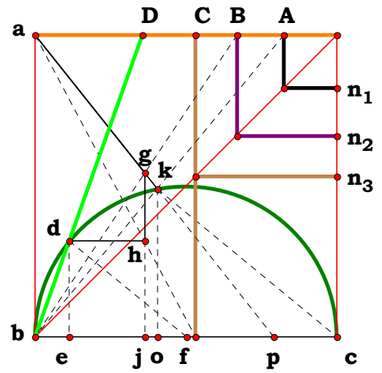
Given.

$A := .82238$ $B := .66713$ $C := .52996$

$n_1 := \frac{1}{A}$ $n_2 := \frac{1}{B}$ $n_3 := \frac{1}{C}$

Unit = 1.00000
A = 0.82238
B = 0.66713
C = 0.52996
D = 0.35710

n_1 = 1.21598
n_2 = 1.49895
n_3 = 1.88695



$$\frac{C\cdot(A^2+B+A\cdot B\cdot(A-1))-\sqrt{8\cdot A^2\cdot B\cdot C\cdot(A^2+B+A\cdot B\cdot(A-1))-4\cdot A^4\cdot B^2-3\cdot C^2\cdot(A^2+B+A\cdot B\cdot(A-1))^2}}{2\cdot(C\cdot(A^2+B+A\cdot B\cdot(A-1))-A^2\cdot B)}-D = 0.00000$$

$$\frac{\sqrt{n_1^4\cdot n_2^2\cdot n_3^2}\cdot(((n_1^2-n_1)+n_2+1)\cdot\sqrt{n_1^4\cdot n_2^2\cdot n_3^2}-n_1^2\cdot n_2\cdot n_3\cdot\sqrt{((((3\cdot n_1^2-3\cdot n_1)+3\cdot n_2)-2\cdot n_3)+3)\cdot(((n_1-n_1^2-n_2)+2\cdot n_3)-1)})}{2\cdot n_1^4\cdot n_2^2\cdot n_3^2\cdot((((n_1^2-n_1)+n_2)-n_3)+1)}-D = 0.00000$$

Descriptions.

$bA := \sqrt{1+A^2}$ $bk := \frac{A}{bA}$ $bo := \frac{A\cdot bk}{bA}$

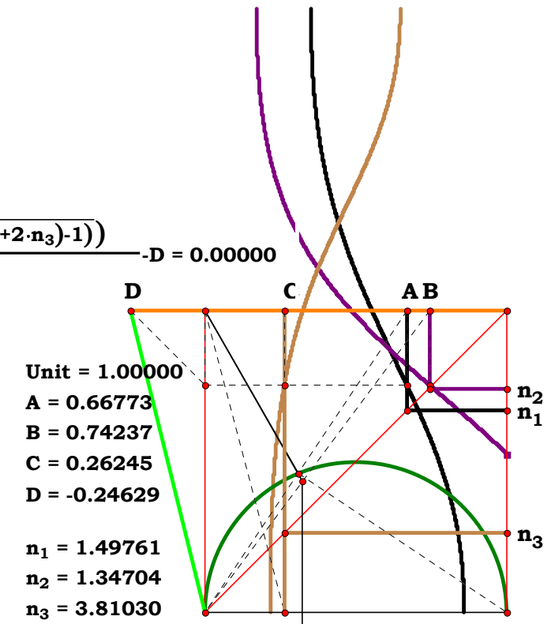
$ko := \frac{bk}{bA}$ $bp := \frac{bo}{1-ko}$ $bj := \frac{B\cdot bp}{B+bp}$

$jo := C - bj$ $hj := \frac{jo}{C}$ $ef := \sqrt{\left(\frac{1}{2}\right)^2 - hj^2}$

$be := \frac{1}{2} - ef$ $D := \frac{be}{hj}$ $D = 0.357113$

Unit = 1.00000
A = 0.66773
B = 0.74237
C = 0.26245
D = -0.24629

n_1 = 1.49761
n_2 = 1.34704
n_3 = 3.81030



$$\frac{C\cdot(A^2+B+A\cdot B\cdot(A-1))-\sqrt{8\cdot A^2\cdot B\cdot C\cdot(A^2+B+A\cdot B\cdot(A-1))-4\cdot A^4\cdot B^2-3\cdot C^2\cdot(A^2+B+A\cdot B\cdot(A-1))^2}}{2\cdot(C\cdot(A^2+B+A\cdot B\cdot(A-1))-A^2\cdot B)}-D = 0.00000$$

$$\frac{\sqrt{n_1^4\cdot n_2^2\cdot n_3^2}\cdot(((n_1^2-n_1)+n_2+1)\cdot\sqrt{n_1^4\cdot n_2^2\cdot n_3^2}-n_1^2\cdot n_2\cdot n_3\cdot\sqrt{((((3\cdot n_1^2-3\cdot n_1)+3\cdot n_2)-2\cdot n_3)+3)\cdot(((n_1-n_1^2-n_2)+2\cdot n_3)-1)})}{2\cdot n_1^4\cdot n_2^2\cdot n_3^2\cdot((((n_1^2-n_1)+n_2)-n_3)+1)}-D = 0.00000$$

Definitions.

$$D - \frac{C\cdot\left[A^2+B+A\cdot B\cdot(A-1)\right]-\sqrt{8\cdot A^2\cdot B\cdot C\cdot\left[A^2+B+A\cdot B\cdot(A-1)\right]-4\cdot A^4\cdot B^2-3\cdot C^2\cdot\left[A^2+B+A\cdot B\cdot(A-1)\right]^2}}{2\cdot\left[C\cdot\left[A^2+B+A\cdot B\cdot(A-1)\right]-A^2\cdot B\right]} = 0$$

$$D - \frac{\sqrt{n_1^4\cdot n_2^2\cdot n_3^2}\cdot\left[\left(n_1^2-n_1+n_2+1\right)\cdot\sqrt{n_1^4\cdot n_2^2\cdot n_3^2}-n_1^2\cdot n_2\cdot n_3\cdot\sqrt{\left[\left(3\cdot n_1^2-3\cdot n_1+3\cdot n_2-2\cdot n_3+3\right)\cdot\left(n_1-n_1^2-n_2+2\cdot n_3-1\right)\right]}\right]}{2\cdot n_1^4\cdot n_2^2\cdot n_3^2\cdot\left(n_1^2-n_1+n_2-n_3+1\right)} = 0$$

3OBT6R0

Given.

$A := .86000$ $B := .67131$

$C := .24155$ $D := .76196$

$n_1 := \frac{1}{A}$ $n_2 := \frac{1}{B}$ $n_3 := \frac{1}{C}$ $n_4 := \frac{1}{D}$

Descriptions.

$bf := \frac{A \cdot C}{A + C}$ $ef := \sqrt{bf \cdot (1 - bf)}$

$ap := \frac{B}{ef}$ $E := \frac{ap \cdot D}{ap + D}$

$E = 0.527674$

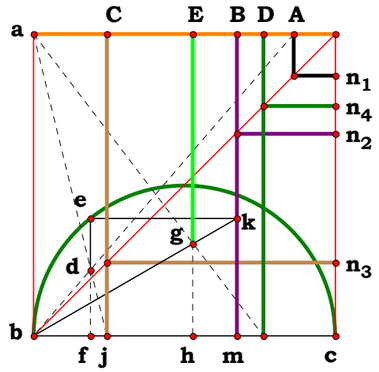
Definitions.

$$E - \frac{B \cdot D \cdot (A + C)}{A \cdot B + B \cdot C + D \cdot \sqrt{A \cdot C \cdot (A + C - A \cdot C)}} = 0$$

$$E - \frac{(n_1 + n_3) \cdot \sqrt{n_1^2 \cdot n_3^2}}{(n_1 \cdot n_4 + n_3 \cdot n_4) \cdot \sqrt{n_1^2 \cdot n_3^2} + n_1 \cdot n_2 \cdot n_3 \cdot \sqrt{n_1 + n_3 - 1}} = 0$$

Unit = 1.00000
A = 0.86000
B = 0.67131
C = 0.24155
D = 0.76196
E = 0.52767

$n_1 = 1.16279$
$n_2 = 1.48962$
$n_3 = 4.13998$
$n_4 = 1.31241$

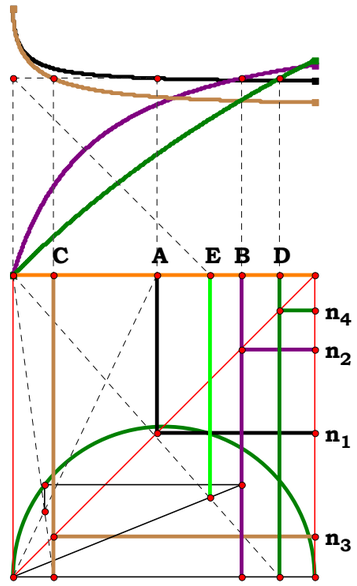


$$\frac{B \cdot D \cdot (A+C)}{A \cdot B + B \cdot C + D \cdot \sqrt{A \cdot C \cdot ((A+C) - A \cdot C)}} - E = 0.00000$$

$$\frac{(n_1+n_3) \cdot \sqrt{n_1^2 \cdot n_3^2}}{(n_1 \cdot n_4 + n_3 \cdot n_4) \cdot \sqrt{n_1^2 \cdot n_3^2} + n_1 \cdot n_2 \cdot n_3 \cdot \sqrt{(n_1+n_3) - 1}} - E = 0.00000$$

Unit = 1.00000
A = 0.47546
B = 0.75491
C = 0.13287
D = 0.88317
E = 0.65088

$n_1 = 2.10324$
$n_2 = 1.32466$
$n_3 = 7.52607$
$n_4 = 1.13228$



$$\frac{B \cdot D \cdot (A+C)}{A \cdot B + B \cdot C + D \cdot \sqrt{A \cdot C \cdot ((A+C) - A \cdot C)}} - E = 0.00000$$

$$\frac{(n_1+n_3) \cdot \sqrt{n_1^2 \cdot n_3^2}}{(n_1 \cdot n_4 + n_3 \cdot n_4) \cdot \sqrt{n_1^2 \cdot n_3^2} + n_1 \cdot n_2 \cdot n_3 \cdot \sqrt{(n_1+n_3) - 1}} - E = 0.00000$$

3OBT6R1

Given. $A := .86000$ $B := .51666$ $C := .67625$

$$n_1 := \frac{1}{A} \quad n_2 := \frac{1}{B} \quad n_3 := \frac{1}{C}$$

Descriptions.

$$hj := \frac{B}{A} \qquad bf := C \cdot (1 - hj)$$

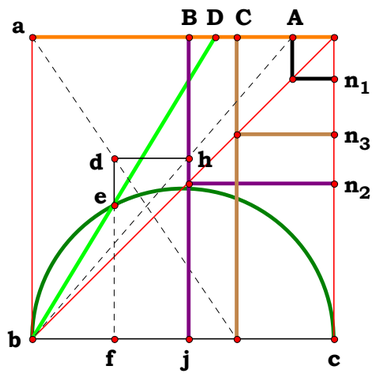
$$ef := \sqrt{bf \cdot (1 - bf)} \qquad D := \frac{bf}{ef}$$

$D = 0.608134$

Definitions.

$$D - \frac{A \cdot C \cdot (A - B)}{A \cdot \sqrt{C \cdot (A - B) \cdot (A - A \cdot C + B \cdot C)}} = 0$$

$$D - \frac{(n_2 - n_1) \cdot \sqrt{n_1^2 \cdot n_2^2 \cdot n_3^2}}{n_1 \cdot n_2 \cdot n_3 \cdot \sqrt{(n_2 - n_1) \cdot (n_1 - n_2 + n_2 \cdot n_3)}} = 0$$

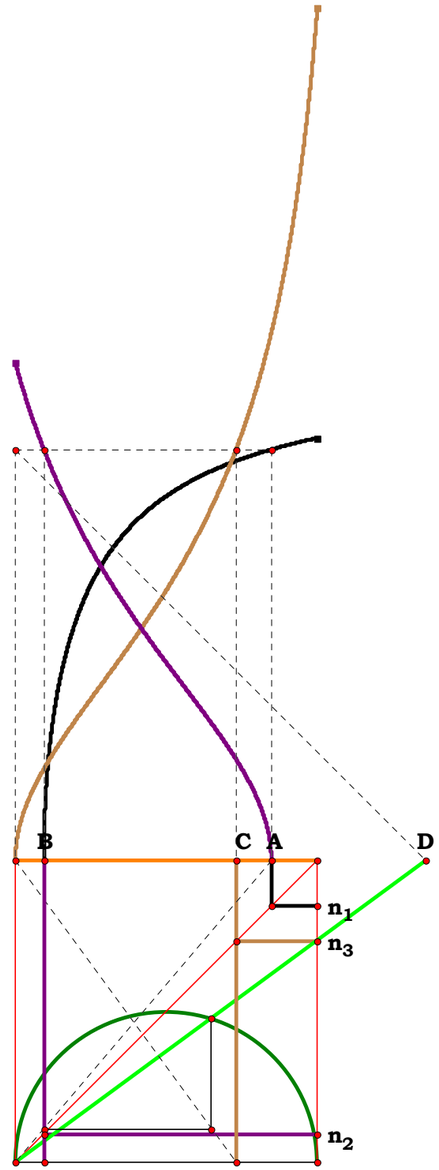


Unit = 1.00000
A = 0.86000
B = 0.51666
C = 0.67625
D = 0.60814

$n_1 = 1.16279$
$n_2 = 1.93552$
$n_3 = 1.47874$

$$\frac{A \cdot C \cdot (A-B)}{A \cdot \sqrt{C \cdot (A-B) \cdot ((A-A \cdot C)+B \cdot C)}} - D = 0.00000$$

$$\frac{(n_2-n_1) \cdot \sqrt{n_1^2 \cdot n_2^2 \cdot n_3^2}}{n_1 \cdot n_2 \cdot n_3 \cdot \sqrt{(n_2-n_1) \cdot ((n_1-n_2)+n_2 \cdot n_3)}} - D = 0.00000$$



Unit = 1.00000
A = 0.84746
B = 0.09449
C = 0.73059
D = 1.36015

$n_1 = 1.17999$
$n_2 = 10.58259$
$n_3 = 1.36876$

$$\frac{A \cdot C \cdot (A-B)}{A \cdot \sqrt{C \cdot (A-B) \cdot ((A-A \cdot C)+B \cdot C)}} - D = 0.00000$$

$$\frac{(n_2-n_1) \cdot \sqrt{n_1^2 \cdot n_2^2 \cdot n_3^2}}{n_1 \cdot n_2 \cdot n_3 \cdot \sqrt{(n_2-n_1) \cdot ((n_1-n_2)+n_2 \cdot n_3)}} - D = 0.00000$$

3OBT6R2

Given. $A := .18287$

$B := .71311$ $C := .61773$

$n_1 := \frac{1}{A}$ $n_2 := \frac{1}{B}$ $n_3 := \frac{1}{C}$

Descriptions.

$bf := \frac{A \cdot C}{A + C}$ $df := \sqrt{bf \cdot (1 - bf)}$

$ap := \frac{B}{df}$ $bp := \sqrt{ap^2 + 1}$

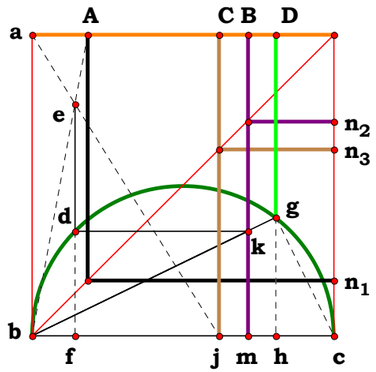
$bg := \frac{ap}{bp}$ $D := \frac{ap \cdot bg}{bp}$

$D = 0.807548$

Definitions.

$$D - \frac{B^2 \cdot (A + C)^2}{\left(B^2 - C^2 + C\right) \cdot A^2 + \left(2 \cdot B^2 \cdot C + C^2\right) \cdot A + B^2 \cdot C^2} = 0$$

$$D - \frac{\left(n_1 + n_3\right)^2}{n_1^2 + n_1 \cdot n_2^2 + 2 \cdot n_1 \cdot n_3 + n_2^2 \cdot n_3 - n_2^2 + n_3^2} = 0$$

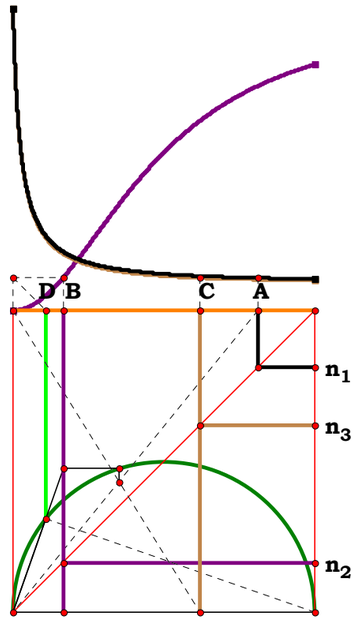


Unit = 1.00000
A = 0.18287
B = 0.71311
C = 0.61773
D = 0.80755

$n_1 = 5.46842$
$n_2 = 1.40231$
$n_3 = 1.61882$

$$\frac{B^2 \cdot (A+C)^2}{A^2 \cdot ((B^2 - C^2) + C) + A \cdot (2 \cdot B^2 \cdot C + C^2) + B^2 \cdot C^2} - D = 0.00000$$

$$\frac{(n_1 + n_3)^2}{((n_1^2 + n_1 \cdot n_2^2 + 2 \cdot n_1 \cdot n_3 + n_2^2 \cdot n_3) - n_2^2) + n_3^2} - D = 0.00000$$



Unit = 1.00000
A = 0.80984
B = 0.16555
C = 0.61773
D = 0.10746

$n_1 = 1.23481$
$n_2 = 6.04040$
$n_3 = 1.61882$

$$\frac{B^2 \cdot (A+C)^2}{A^2 \cdot ((B^2 - C^2) + C) + A \cdot (2 \cdot B^2 \cdot C + C^2) + B^2 \cdot C^2} - D = 0.00000$$

$$\frac{(n_1 + n_3)^2}{((n_1^2 + n_1 \cdot n_2^2 + 2 \cdot n_1 \cdot n_3 + n_2^2 \cdot n_3) - n_2^2) + n_3^2} - D = 0.00000$$

3OBT6R3

Given.

$A := .19959$ $B := .56264$

$C := .83926$ $D := .47355$

$n_1 := \frac{1}{A}$ $n_2 := \frac{1}{B}$ $n_3 := \frac{1}{C}$ $n_4 := \frac{1}{D}$

Descriptions.

$bf := \frac{A \cdot C}{A + C}$ $ef := \sqrt{bf \cdot (1 - bf)}$

$ap := \frac{B}{ef}$ $bj := \frac{ap \cdot D}{ap + D}$

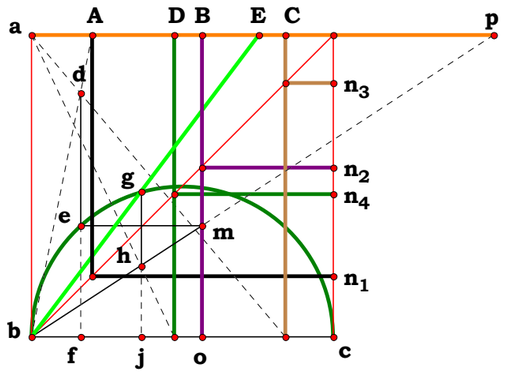
$gj := \sqrt{bj \cdot (1 - bj)}$ $E := \frac{bj}{gj}$

$E = 0.752639$

Definitions.

$$E - \frac{B \cdot D \cdot \sqrt{A + C}}{\sqrt{B \cdot D \cdot \left[A \cdot B + B \cdot C + D \cdot \sqrt{A \cdot C \cdot (A + C - A \cdot C)} - B \cdot D \cdot (A + C)\right]}} = 0$$

$$E - \frac{\sqrt{n_1 + n_3} \cdot \sqrt{n_1 \cdot {n_2}^2 \cdot n_3 \cdot {n_4}^2}}{n_2 \cdot n_4 \cdot \sqrt{n_1 \cdot {n_3}^2 \cdot n_4 - {n_1}^2 \cdot n_3 - n_1 \cdot {n_3}^2 + {n_1}^2 \cdot n_3 \cdot n_4 + n_2 \cdot \sqrt{{n_1}^2 \cdot {n_3}^2} \cdot \sqrt{n_1 + n_3 - 1}}} = 0$$

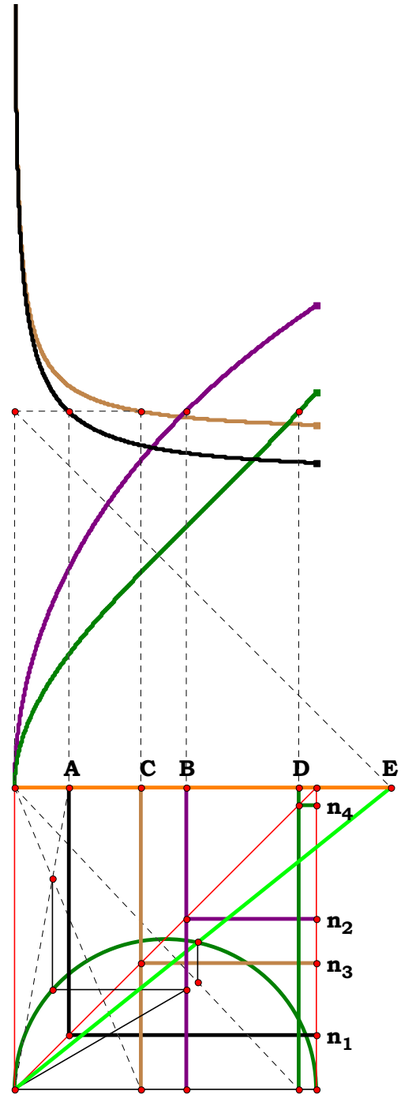


Unit = 1.00000
A = 0.19959
B = 0.56264
C = 0.83926
D = 0.47355
E = 0.75264

$n_1 = 5.01033$
$n_2 = 1.77735$
$n_3 = 1.19152$
$n_4 = 2.11171$

$$\frac{B \cdot D \cdot \sqrt{A+C}}{\sqrt{B \cdot D \cdot \left(\left(A \cdot B + B \cdot C + D \cdot \sqrt{A \cdot C \cdot \left((A+C) - A \cdot C\right)}\right) - B \cdot D \cdot (A+C)\right)}} - E = 0.00000$$

$$\frac{\sqrt{n_1+n_3} \cdot \sqrt{n_1 \cdot {n_2}^2 \cdot n_3 \cdot {n_4}^2}}{n_2 \cdot n_4 \cdot \sqrt{\left(n_1 \cdot {n_3}^2 \cdot n_4 - {n_1}^2 \cdot n_3 - n_1 \cdot {n_3}^2\right) + {n_1}^2 \cdot n_3 \cdot n_4 + n_2 \cdot \sqrt{(n_1+n_3) - 1} \cdot \sqrt{{n_1}^2 \cdot {n_3}^2}}} - E = 0.00000$$



Unit = 1.00000
A = 0.17869
B = 0.56682
C = 0.41710
D = 0.94169
E = 1.24459

$n_1 = 5.59634$
$n_2 = 1.76424$
$n_3 = 2.39751$
$n_4 = 1.06192$

$$\frac{B \cdot D \cdot \sqrt{A+C}}{\sqrt{B \cdot D \cdot \left(\left(A \cdot B + B \cdot C + D \cdot \sqrt{A \cdot C \cdot \left((A+C) - A \cdot C\right)}\right) - B \cdot D \cdot (A+C)\right)}} - E = 0.00000$$

$$\frac{\sqrt{n_1+n_3} \cdot \sqrt{n_1 \cdot {n_2}^2 \cdot n_3 \cdot {n_4}^2}}{n_2 \cdot n_4 \cdot \sqrt{\left(n_1 \cdot {n_3}^2 \cdot n_4 - {n_1}^2 \cdot n_3 - n_1 \cdot {n_3}^2\right) + {n_1}^2 \cdot n_3 \cdot n_4 + n_2 \cdot \sqrt{(n_1+n_3) - 1} \cdot \sqrt{{n_1}^2 \cdot {n_3}^2}}} - E = 0.00000$$

3OBT6R4

Given. $A := .52143$ $B := .39544$ $C := .70551$

$$n_1 := \frac{1}{A} \quad n_2 := \frac{1}{B} \quad n_3 := \frac{1}{C}$$

Descriptions.

$$bf := \frac{A \cdot C}{A + C} \qquad df := \sqrt{bf \cdot (1 - bf)}$$

$$D := \frac{B}{df} \qquad D = 0.86306$$

Definitions.

$$D - \frac{B \cdot (A + C)}{\sqrt{A \cdot C \cdot (A + C - A \cdot C)}} = 0$$

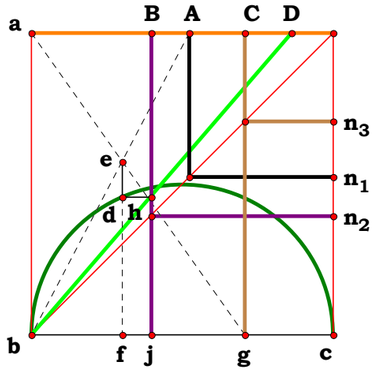
$$D - \frac{\sqrt{n_1^{\,2} \cdot n_3^{\,2}} \cdot (n_1 + n_3)}{n_1 \cdot n_2 \cdot n_3 \cdot \sqrt{n_1 + n_3 - 1}} = 0$$

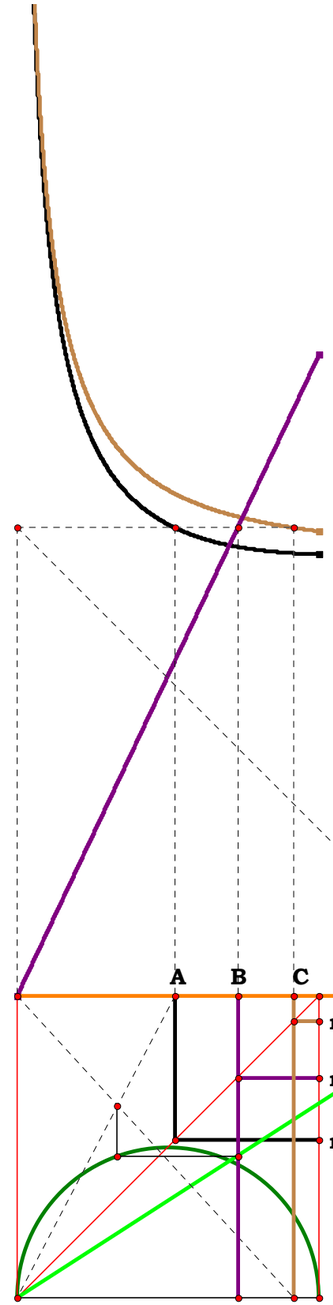
Unit = 1.00000
A = 0.52143
B = 0.39544
C = 0.70551
D = 0.86307

n_1 = 1.91779
n_2 = 2.52881
n_3 = 1.41742

$$\frac{B \cdot (A+C)}{\sqrt{A \cdot C \cdot ((A+C) - A \cdot C)}} - D = 0.00000$$

$$\frac{(n_1+n_3) \cdot \sqrt{n_1^{\,2} \cdot n_3^{\,2}}}{n_1 \cdot n_2 \cdot n_3 \cdot \sqrt{(n_1+n_3) - 1}} - D = 0.00000$$





Unit = 1.00000
A = 0.52143
B = 0.72983
C = 0.91450
D = 1.54966

n_1 = 1.91779
n_2 = 1.37018
n_3 = 1.09349

$$\frac{B \cdot (A+C)}{\sqrt{A \cdot C \cdot ((A+C) - A \cdot C)}} - D = 0.00000$$

$$\frac{(n_1+n_3) \cdot \sqrt{n_1^{\,2} \cdot n_3^{\,2}}}{n_1 \cdot n_2 \cdot n_3 \cdot \sqrt{(n_1+n_3) - 1}} - D = 0.00000$$

3OBT6R5

Given.

$A := .72207$ $B := .61279$ $C := .19557$

$n_1 := \frac{1}{A}$ $n_2 := \frac{1}{B}$ $n_3 := \frac{1}{C}$

Descriptions.

$bf := \frac{A \cdot C}{A + C}$ $ef := \sqrt{bf \cdot (1 - bf)}$

$bk := \sqrt{B^2 + ef^2}$ $bg := \frac{B}{bk}$

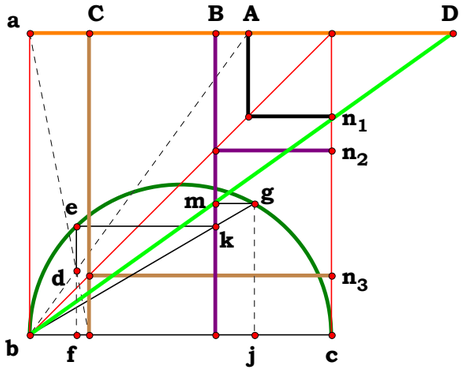
$gj := \frac{ef \cdot bg}{bk}$ $D := \frac{B}{gj}$

$D = 1.401494$

Definitions.

$$D - \frac{B^2 \cdot (A + C)^2 + A \cdot C \cdot (A + C - A \cdot C)}{(A + C) \cdot \sqrt{A \cdot C \cdot (A + C - A \cdot C)}} = 0$$

$$D - \frac{\sqrt{n_1^2 \cdot n_3^2} \cdot \left(n_1^2 + n_1 \cdot n_2^2 + 2 \cdot n_1 \cdot n_3 + n_2^2 \cdot n_3 - n_2^2 + n_3^2\right)}{n_1 \cdot n_2^2 \cdot n_3 \cdot (n_1 + n_3) \cdot \sqrt{n_1 + n_3 - 1}} = 0$$

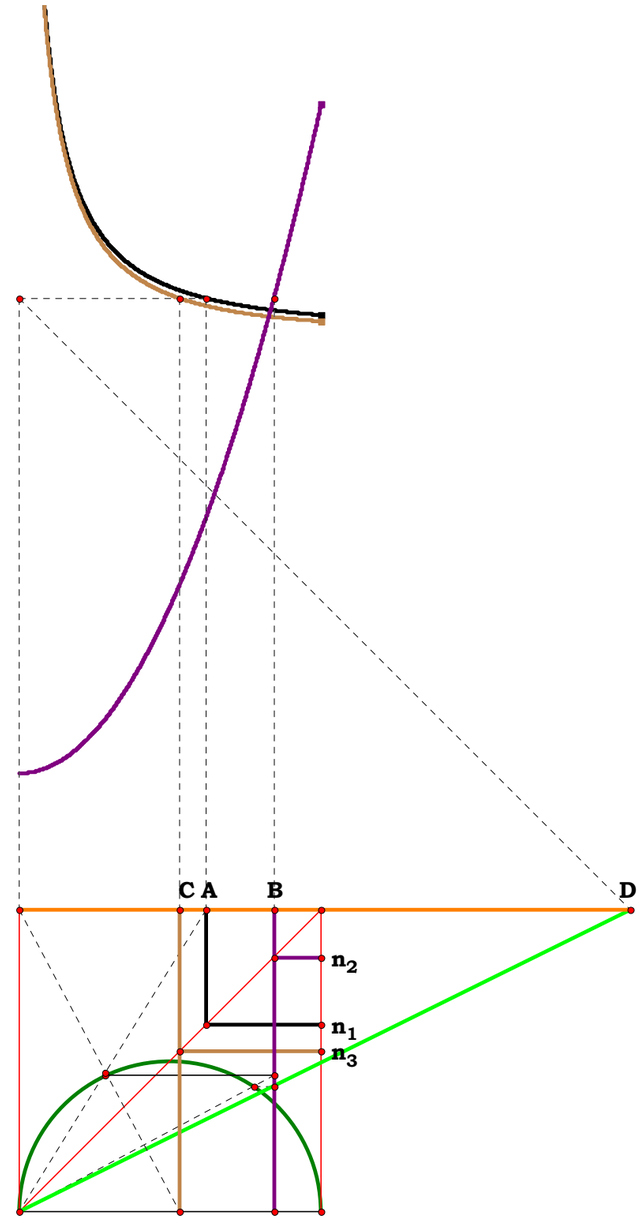


Unit = 1.00000
A = 0.72207
B = 0.61279
C = 0.19557
D = 1.40151

$n_1 = 1.38491$
$n_2 = 1.63187$
$n_3 = 5.11328$

$$\frac{B^2 \cdot (A+C)^2 + A \cdot C \cdot ((A+C) - A \cdot C)}{(A+C) \cdot \sqrt{A \cdot C \cdot ((A+C) - A \cdot C)}} - D = 0.00000$$

$$\frac{\sqrt{n_1^2 \cdot n_3^2} \cdot (((n_1^2 + n_1 \cdot n_2^2 + 2 \cdot n_1 \cdot n_3 + n_2^2 \cdot n_3) - n_2^2) + n_3^2)}{n_1 \cdot n_2^2 \cdot n_3 \cdot (n_1 + n_3) \cdot \sqrt{(n_1 + n_3) - 1}} - D = 0.00000$$



Unit = 1.00000
A = 0.61757
B = 0.84268
C = 0.52996
D = 2.02426

$n_1 = 1.61925$
$n_2 = 1.18668$
$n_3 = 1.88695$

$$\frac{B^2 \cdot (A+C)^2 + A \cdot C \cdot ((A+C) - A \cdot C)}{(A+C) \cdot \sqrt{A \cdot C \cdot ((A+C) - A \cdot C)}} - D = 0.00000$$

$$\frac{\sqrt{n_1^2 \cdot n_3^2} \cdot (((n_1^2 + n_1 \cdot n_2^2 + 2 \cdot n_1 \cdot n_3 + n_2^2 \cdot n_3) - n_2^2) + n_3^2)}{n_1 \cdot n_2^2 \cdot n_3 \cdot (n_1 + n_3) \cdot \sqrt{(n_1 + n_3) - 1}} - D = 0.00000$$

3OBT6R6

Given. $A := .68445$ $B := .21571$ $C := .80582$

$$n_1 := \frac{1}{A} \quad n_2 := \frac{1}{B} \quad n_3 := \frac{1}{C}$$

Descriptions.

$$bf := \frac{A \cdot C}{A + C} \qquad ef := \sqrt{bf \cdot (1 - bf)}$$

$$ap := \frac{B}{ef} \qquad bh := \frac{ap \cdot C}{ap + C}$$

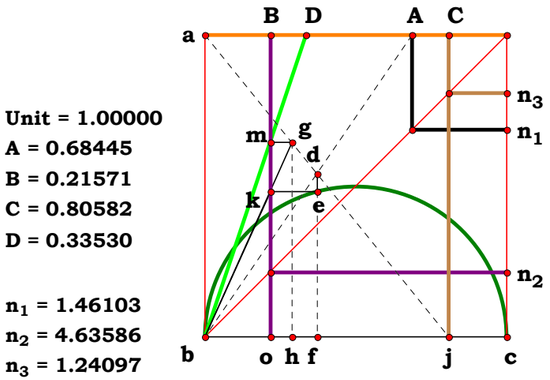
$$gh := \frac{bh}{ap} \qquad D := \frac{B}{gh}$$

$D = 0.335304$

Definitions.

$$D - \frac{B \cdot \left[A \cdot B + B \cdot C + C \cdot \sqrt{A \cdot C \cdot (A + C - A \cdot C)}\right]}{C \cdot \sqrt{A \cdot C \cdot (A + C - A \cdot C)}} = 0$$

$$D - \frac{\left(n_1 + n_3\right) \cdot \sqrt{{n_1}^2 \cdot {n_3}^2} + n_1 \cdot n_2 \cdot \sqrt{n_1 + n_3 - 1}}{n_1 \cdot {n_2}^2 \cdot \sqrt{n_1 + n_3 - 1}} = 0$$

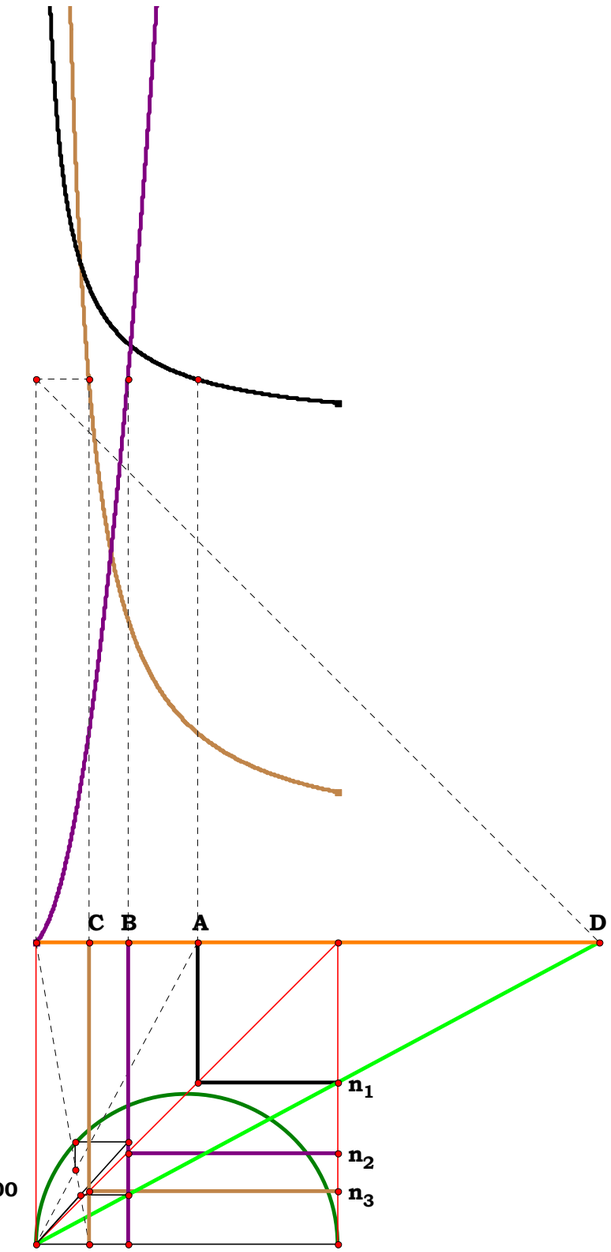


Unit = 1.00000
A = 0.68445
B = 0.21571
C = 0.80582
D = 0.33530

n_1 = 1.46103
n_2 = 4.63586
n_3 = 1.24097

$$\frac{B \cdot \left(A \cdot B + B \cdot C + C \cdot \sqrt{A \cdot C \cdot ((A+C) - A \cdot C)}\right)}{C \cdot \sqrt{A \cdot C \cdot ((A+C) - A \cdot C)}} - D = 0.00000$$

$$\frac{(n_1 + n_3) \cdot \sqrt{{n_1}^2 \cdot {n_3}^2} + n_1 \cdot n_2 \cdot \sqrt{(n_1 + n_3) - 1}}{n_1 \cdot {n_2}^2 \cdot \sqrt{(n_1 + n_3) - 1}} - D = 0.00000$$



Unit = 1.00000
A = 0.53397
B = 0.30349
C = 0.17467
D = 1.86322

n_1 = 1.87275
n_2 = 3.29504
n_3 = 5.72509

$$\frac{B \cdot \left(A \cdot B + B \cdot C + C \cdot \sqrt{A \cdot C \cdot ((A+C) - A \cdot C)}\right)}{C \cdot \sqrt{A \cdot C \cdot ((A+C) - A \cdot C)}} - D = 0.00000$$

$$\frac{(n_1 + n_3) \cdot \sqrt{{n_1}^2 \cdot {n_3}^2} + n_1 \cdot n_2 \cdot \sqrt{(n_1 + n_3) - 1}}{n_1 \cdot {n_2}^2 \cdot \sqrt{(n_1 + n_3) - 1}} - D = 0.00000$$

3OBT6R7

Given. $A := .38768$ $B := .57936$ $C := .79746$

$$n_1 := \frac{1}{A} \quad n_2 := \frac{1}{B} \quad n_3 := \frac{1}{C}$$

Descriptions.

$$bA := \sqrt{1 + A^2} \qquad be := \frac{A}{bA}$$

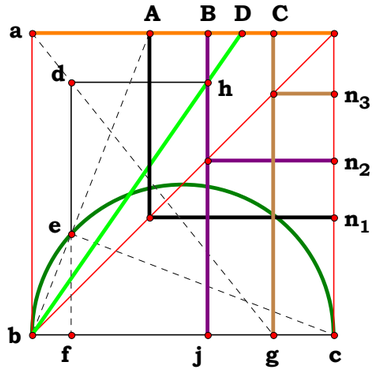
$$bf := \frac{A \cdot be}{bA} \qquad df := \frac{C - bf}{C}$$

$$D := \frac{B}{df} \qquad D = 0.692884$$

Definitions.

$$D - \frac{B \cdot C \cdot \left(A^2 + 1\right)}{A^2 \cdot C - A^2 + C} = 0$$

$$D - \frac{{n_1}^2 + 1}{n_2 \cdot {n_1}^2 + n_2 - n_2 \cdot n_3} = 0$$

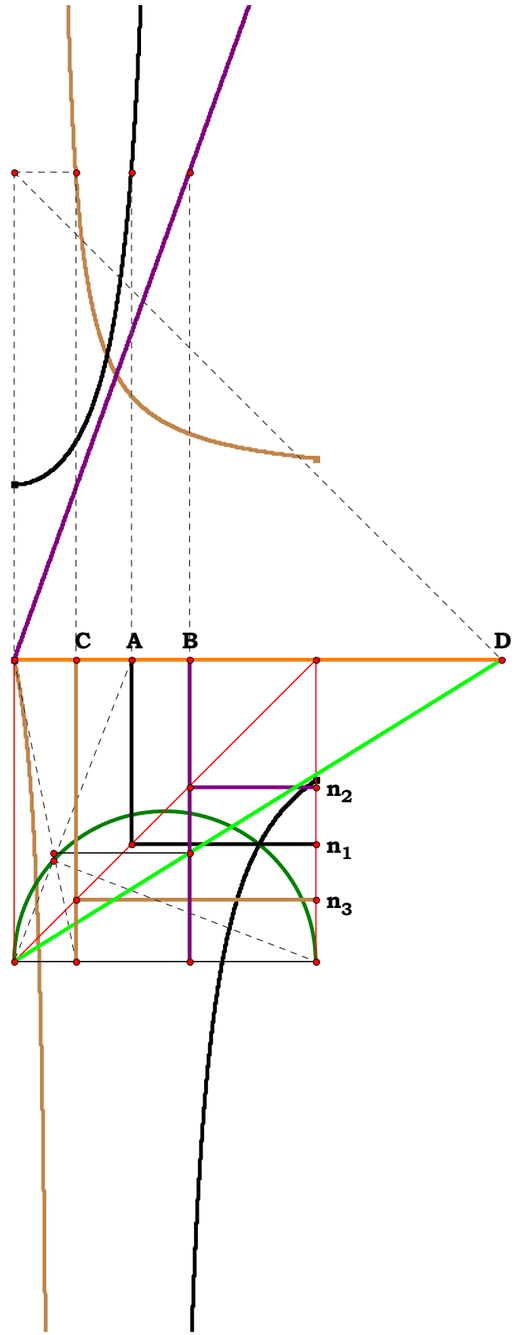


Unit = 1.00000
A = 0.38768
B = 0.57936
C = 0.79746
D = 0.69288

$n_1 = 2.57945$
$n_2 = 1.72606$
$n_3 = 1.25397$

$\frac{B \cdot C \cdot (A^2+1)}{(A^2 \cdot C - A^2)+C} - D = 0.00000$

$\frac{{n_1}^2+1}{({n_1}^2 \cdot n_2 + n_2) - n_2 \cdot n_3} - D = 0.00000$



Unit = 1.00000
A = 0.38768
B = 0.57936
C = 0.20393
D = 1.61248

$n_1 = 2.57945$
$n_2 = 1.72606$
$n_3 = 4.90367$

$\frac{B \cdot C \cdot (A^2+1)}{(A^2 \cdot C - A^2)+C} - D = 0.00000$

$\frac{{n_1}^2+1}{({n_1}^2 \cdot n_2 + n_2) - n_2 \cdot n_3} - D = 0.00000$

3OBT7R0

Given.

$A := .63011$

$B := .34946$ $C := .18721$

$n_1 := \frac{1}{A}$ $n_2 := \frac{1}{B}$ $n_3 := \frac{1}{C}$

Descriptions.

$km := \frac{B}{A}$ $bf := C \cdot km$

$df := \sqrt{bf \cdot (1 - bf)}$ $bm := \frac{bf}{1 - df}$

$gh := \frac{bm}{C}$ $D := \frac{B}{gh}$

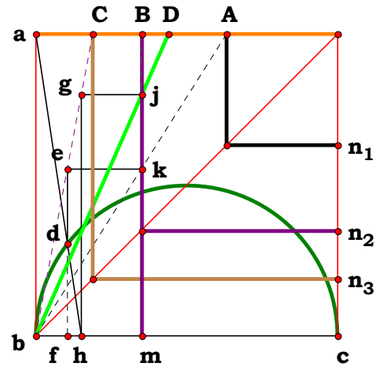
$D = 0.437904$

Definitions.

$$D - \left(A - \sqrt{A \cdot B \cdot C - B^2 \cdot C^2}\right) = 0$$

$$D - \frac{\sqrt{n_1 \cdot n_2^2 \cdot n_3^2} - n_1 \cdot \sqrt{n_2 \cdot n_3 - n_1}}{n_1 \cdot \sqrt{n_1 \cdot n_2^2 \cdot n_3^2}} = 0$$

Unit = 1.00000
A = 0.63011
B = 0.34946
C = 0.18721
D = 0.43790

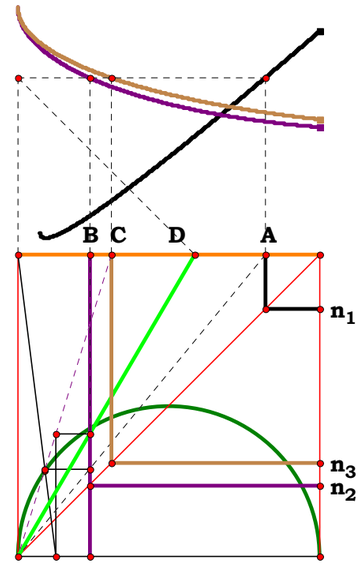


$n_1 = 1.58702$
$n_2 = 2.86152$
$n_3 = 5.34161$

$A - \sqrt{A \cdot B \cdot C - B^2 \cdot C^2} - D = 0.00000$

$$\frac{\sqrt{n_1 \cdot n_2^2 \cdot n_3^2} - n_1 \cdot \sqrt{n_2 \cdot n_3 - n_1}}{n_1 \cdot \sqrt{n_1 \cdot n_2^2 \cdot n_3^2}} - D = 0.00000$$

Unit = 1.00000
A = 0.81820
B = 0.23661
C = 0.30842
D = 0.58500



$n_1 = 1.22219$
$n_2 = 4.22638$
$n_3 = 3.24228$

$A - \sqrt{A \cdot B \cdot C - B^2 \cdot C^2} - D = 0.00000$

$$\frac{\sqrt{n_1 \cdot n_2^2 \cdot n_3^2} - n_1 \cdot \sqrt{n_2 \cdot n_3 - n_1}}{n_1 \cdot \sqrt{n_1 \cdot n_2^2 \cdot n_3^2}} - D = 0.00000$$

3OBT7R1

Given. $A := .86000$ $B := .56264$ $C := .46726$

$$n_1 := \frac{1}{A} \quad n_2 := \frac{1}{B} \quad n_3 := \frac{1}{C}$$

Descriptions.

$$gh := \frac{B}{A} \qquad bf := C \cdot gh$$

$$ef := \sqrt{bf \cdot (1 - bf)} \qquad D := \frac{bf}{ef}$$

$D = 0.663546$

Definitions.

$$D - \frac{B \cdot C}{\sqrt{A \cdot B \cdot C - B^2 \cdot C^2}} = 0$$

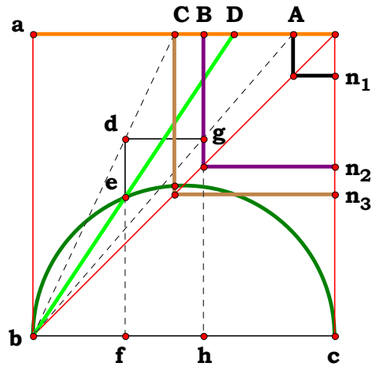
$$D - \frac{\sqrt{n_1 \cdot n_2^2 \cdot n_3^2}}{n_2 \cdot n_3 \cdot \sqrt{n_2 \cdot n_3 - n_1}} = 0$$

Unit = 1.00000
A = 0.86000
B = 0.56264
C = 0.46726
D = 0.66354

$n_1 = 1.16279$
$n_2 = 1.77735$
$n_3 = 2.14014$

$$\frac{B \cdot C}{\sqrt{A \cdot B \cdot C - B^2 \cdot C^2}} = 0.66354$$

$$\frac{\sqrt{n_1 \cdot n_2^2 \cdot n_3^2}}{n_2 \cdot n_3 \cdot \sqrt{n_2 \cdot n_3 - n_1}} = 0.66354$$



Unit = 1.00000
A = 0.22049
B = 0.28677
C = 0.53414
D = 1.50847

$n_1 = 4.53542$
$n_2 = 3.48715$
$n_3 = 1.87218$

$$\frac{B \cdot C}{\sqrt{A \cdot B \cdot C - B^2 \cdot C^2}} = 1.50847$$

$$\frac{\sqrt{n_1 \cdot n_2^2 \cdot n_3^2}}{n_2 \cdot n_3 \cdot \sqrt{n_2 \cdot n_3 - n_1}} = 1.50847$$

3OBT7R2

Given. $A := .86000$ $B := .58354$ $C := .18303$

$n_1 := \frac{1}{A}$ $n_2 := \frac{1}{B}$ $n_3 := \frac{1}{C}$

Descriptions.

$fd := \frac{1}{A}$ $bh := fd$

$be := \frac{C \cdot bh}{C + bh}$ $bj := \frac{be}{bh}$

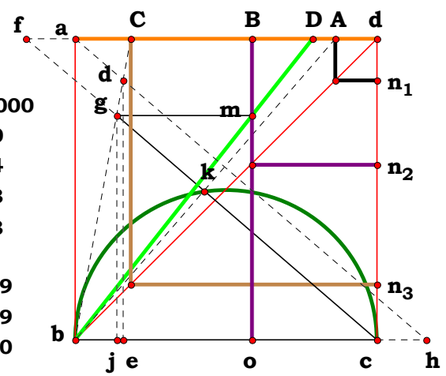
$gj := \frac{bj}{C}$ $D := \frac{B}{gj}$

$D = 0.78534$

Definitions.

$$D - \frac{A \cdot B \cdot C + B}{A} = 0$$

$$D - \frac{n_1 \cdot n_3 + 1}{n_2 \cdot n_3} = 0$$

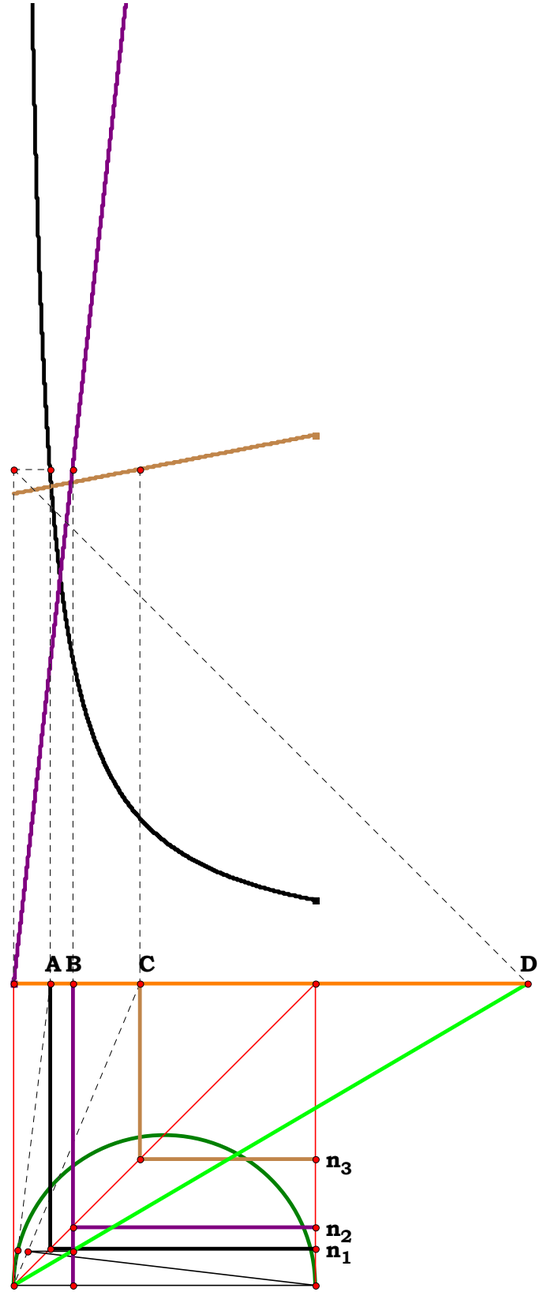


Unit = 1.00000
A = 0.86000
B = 0.58354
C = 0.18303
D = 0.78533

n_1 = 1.16279
n_2 = 1.71369
n_3 = 5.46360

$\frac{A \cdot B \cdot C + B}{A}$ -D = 0.00000

$\frac{n_1 \cdot n_3 + 1}{n_2 \cdot n_3}$ -D = 0.00000



Unit = 1.00000
A = 0.12017
B = 0.19481
C = 0.41710
D = 1.70237

n_1 = 8.32150
n_2 = 5.13319
n_3 = 2.39751

$\frac{A \cdot B \cdot C + B}{A}$ -D = 0.00000

$\frac{n_1 \cdot n_3 + 1}{n_2 \cdot n_3}$ -D = 0.00000

3OBT7R3

Given.

$A := .59249$ $B := .32070$ $C := .43800$

$n_1 := \frac{1}{A}$ $n_2 := \frac{1}{B}$ $n_3 := \frac{1}{C}$

Descriptions.

$hj := \frac{B}{A}$ $bf := C \cdot hj$

$df := \sqrt{bf \cdot (1 - bf)}$ $D := \frac{B}{df}$

$D = 0.754072$

Definitions.

$$D - \frac{A \cdot B}{\sqrt{A \cdot B \cdot C - B^2 \cdot C^2}} = 0$$

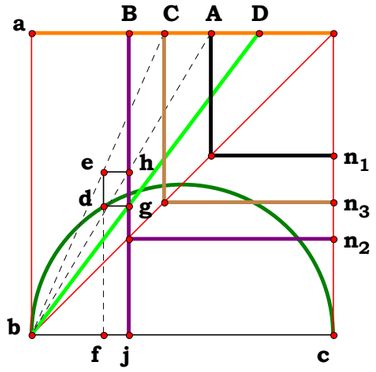
$$D - \frac{\sqrt{n_1 \cdot n_2^2 \cdot n_3^2}}{n_1 \cdot n_2 \cdot \sqrt{n_2 \cdot n_3 - n_1}} = 0$$

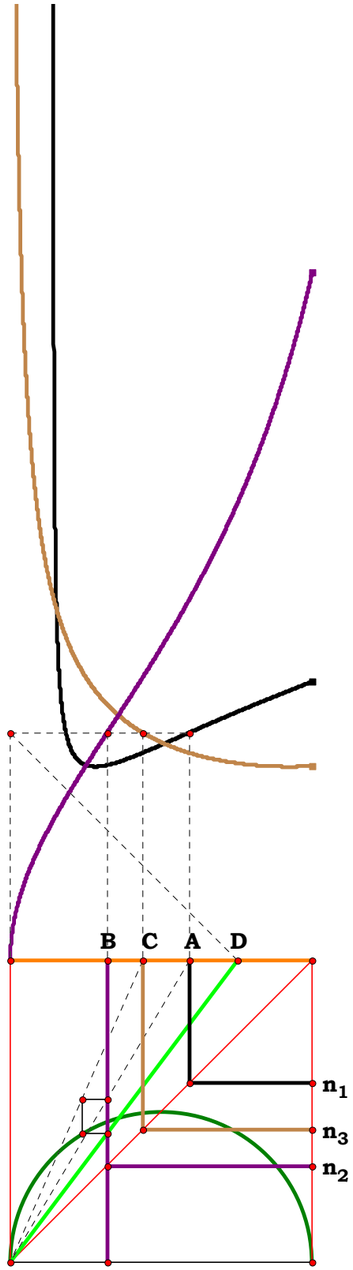
Unit = 1.00000
A = 0.59249
B = 0.32070
C = 0.43800
D = 0.75407

n_1 = 1.68779
n_2 = 3.11818
n_3 = 2.28311

$\frac{A \cdot B}{\sqrt{A \cdot B \cdot C - B^2 \cdot C^2}} - D = 0.00000$

$\frac{\sqrt{n_1 \cdot n_2^2 \cdot n_3^2}}{n_1 \cdot n_2 \cdot \sqrt{n_2 \cdot n_3 - n_1}} - D = 0.00000$





Unit = 1.00000
A = 0.59249
B = 0.32070
C = 0.43800
D = 0.75407

n_1 = 1.68779
n_2 = 3.11818
n_3 = 2.28311

$\frac{A \cdot B}{\sqrt{A \cdot B \cdot C - B^2 \cdot C^2}} - D = 0.00000$

$\frac{\sqrt{n_1 \cdot n_2^2 \cdot n_3^2}}{n_1 \cdot n_2 \cdot \sqrt{n_2 \cdot n_3 - n_1}} - D = 0.00000$

3OBT7R4

Given. $A := .70535$ $B := .22825$ $C := .17049$

$$n_1 := \frac{1}{A} \quad n_2 := \frac{1}{B} \quad n_3 := \frac{1}{C}$$

Descriptions.

$$bA := \sqrt{1 + A^2} \qquad bg := \frac{A}{bA}$$

$$gh := \frac{bg}{bA} \qquad bf := C \cdot gh$$

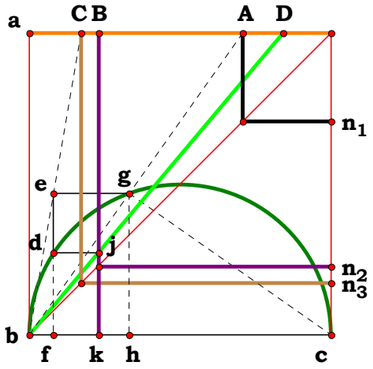
$$df := \sqrt{bf \cdot (1 - bf)} \qquad D := \frac{B}{df}$$

$D = 0.839891$

Definitions.

$$D - \frac{B \cdot \left(A^2 + 1\right)}{\sqrt{A^3 \cdot C - A^2 \cdot C^2 + A \cdot C}} = 0$$

$$D - \frac{\sqrt{{n_1}^3 \cdot {n_3}^2} \cdot \left({n_1}^2 + 1\right)}{{n_1}^2 \cdot n_2 \cdot \sqrt{n_3 \cdot {n_1}^2 - n_1 + n_3}} = 0$$

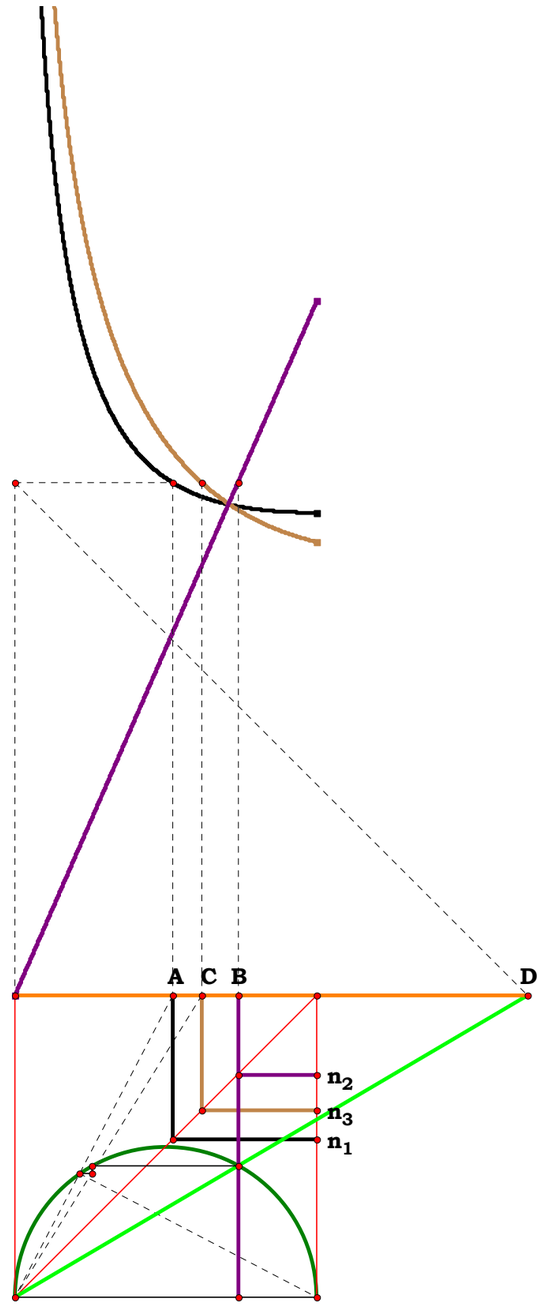


Unit = 1.00000
A = 0.70535
B = 0.22825
C = 0.17049
D = 0.83989

n_1 = 1.41774
n_2 = 4.38117
n_3 = 5.86545

$\frac{B \cdot (A^2+1)}{\sqrt{(A^3 \cdot C - A^2 \cdot C^2)+A \cdot C}} - D = 0.00000$

$\frac{\sqrt{n_1^3 \cdot n_3^2} \cdot (n_1^2+1)}{n_1^2 \cdot n_2 \cdot \sqrt{(n_1^2 \cdot n_3 - n_1)+n_3}} - D = 0.00000$



Unit = 1.00000
A = 0.52143
B = 0.73819
C = 0.61773
D = 1.69748

n_1 = 1.91779
n_2 = 1.35467
n_3 = 1.61882

$\frac{B \cdot (A^2+1)}{\sqrt{(A^3 \cdot C - A^2 \cdot C^2)+A \cdot C}} - D = 0.00000$

$\frac{\sqrt{n_1^3 \cdot n_3^2} \cdot (n_1^2+1)}{n_1^2 \cdot n_2 \cdot \sqrt{(n_1^2 \cdot n_3 - n_1)+n_3}} - D = 0.00000$

3OBT7R5

Given. $A := 3.08081$

$B := 1.53535$ $C := .76768$

$n_1 := \frac{1}{A}$ $n_2 := \frac{1}{B}$ $n_3 := \frac{1}{C}$

Descriptions.

$bA := \sqrt{1 + A^2}$ $bf := \frac{A}{bA}$

$bg := \frac{A \cdot bf}{bA}$ $fg := \frac{bf}{bA}$

$bk := \frac{bg}{1 - fg}$ $be := \frac{C \cdot bk}{C + bk}$

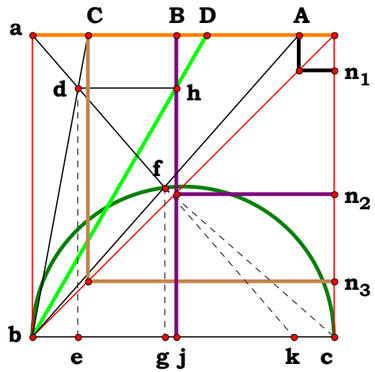
$de := \frac{be}{C}$ $D := \frac{B}{de}$

$D = 2.455609$

Definitions.

$$D - \frac{A \cdot B \cdot C \cdot (A - 1) + B \cdot \left(A^2 + C\right)}{A^2} = 0$$

$$D - \frac{n_1{}^2 - n_1 + n_3 + 1}{n_2 \cdot n_3} = 0$$

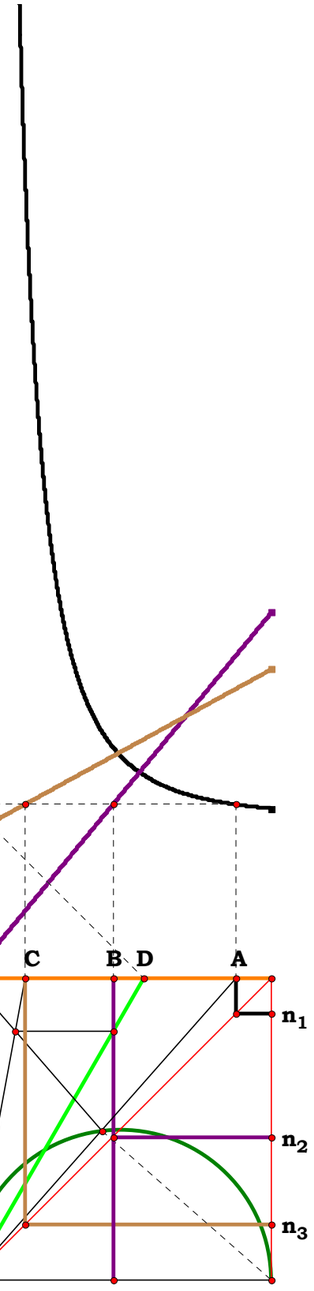


Unit = 1.00000
A = 0.88090
B = 0.47486
C = 0.18303
D = 0.57511

n_1 = 1.13520
n_2 = 2.10589
n_3 = 5.46360

$\frac{A \cdot B \cdot C \cdot (A-1) + B \cdot (A^2 + C)}{A^2} - D = 0.00000$

$\frac{(n_1{}^2 - n_1) + n_3 + 1}{n_2 \cdot n_3} - D = 0.00000$



Unit = 1.00000
A = 0.88090
B = 0.47486
C = 0.18303
D = 0.57511

n_1 = 1.13520
n_2 = 2.10589
n_3 = 5.46360

$\frac{A \cdot B \cdot C \cdot (A-1) + B \cdot (A^2 + C)}{A^2} - D = 0.00000$

$\frac{(n_1{}^2 - n_1) + n_3 + 1}{n_2 \cdot n_3} - D = 0.00000$

3OBT7R6

Given.

$A := .78476$ $B := .30767$ $C := .19139$

$n_1 := \frac{1}{A}$ $n_2 := \frac{1}{B}$ $n_3 := \frac{1}{C}$

Descriptions.

$bd := \frac{1}{A}$ $be := \frac{C \cdot bd}{C + bd}$

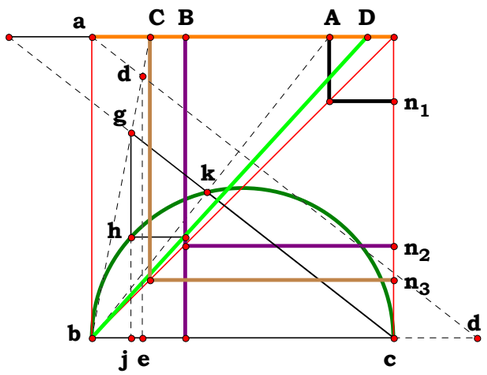
$bj := \frac{be}{bd}$ $bj := \sqrt{bj \cdot (1 - bj)}$

$D := \frac{B}{bj}$ $D = 0.913122$

Definitions.

$$D - \frac{B \cdot (A \cdot C + 1)}{\sqrt{A \cdot C}} = 0$$

$$D - \frac{\sqrt{n_1 \cdot n_3} \cdot (n_1 \cdot n_3 + 1)}{n_1 \cdot n_2 \cdot n_3} = 0$$

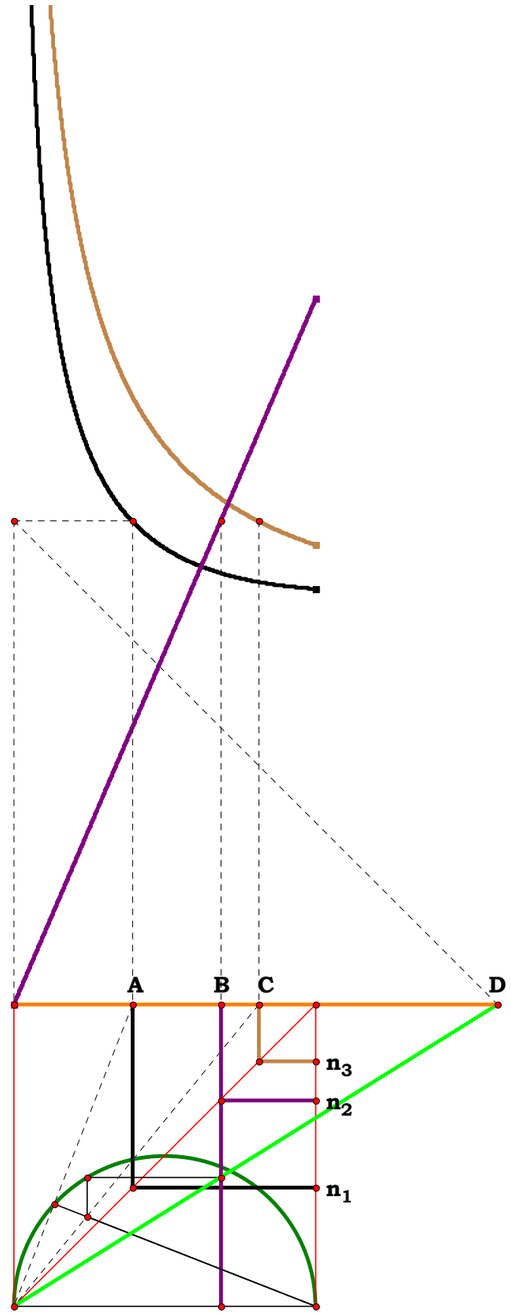


Unit = 1.00000
A = 0.78476
B = 0.30767
C = 0.19139
D = 0.91311

n_1 = 1.27427
n_2 = 3.25028
n_3 = 5.22496

$\frac{B \cdot (A \cdot C+1)}{\sqrt{A \cdot C}}$ -D = 0.00000

$\frac{\sqrt{n_1 \cdot n_3} \cdot (n_1 \cdot n_3+1)}{n_1 \cdot n_2 \cdot n_3}$ -D = 0.00000



Unit = 1.00000
A = 0.39186
B = 0.68385
C = 0.81000
D = 1.59909

n_1 = 2.55193
n_2 = 1.46231
n_3 = 1.23456

$\frac{B \cdot (A \cdot C+1)}{\sqrt{A \cdot C}}$ -D = 0.00000

$\frac{\sqrt{n_1 \cdot n_3} \cdot (n_1 \cdot n_3+1)}{n_1 \cdot n_2 \cdot n_3}$ -D = 0.00000

3OBT7R7

Given. $A := .82656$ $B := .70475$ $C := .57593$

$$n_1 := \frac{1}{A} \quad n_2 := \frac{1}{B} \quad n_3 := \frac{1}{C}$$

Descriptions.

$$jk := \frac{B}{A} \qquad bh := C \cdot jk$$

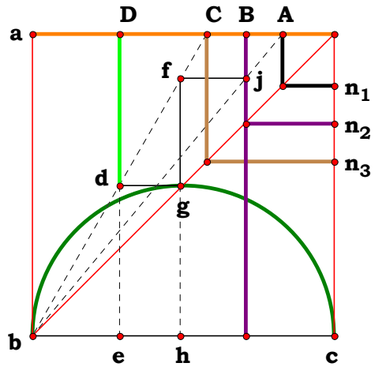
$$gh := \sqrt{bh \cdot (1 - bh)} \qquad D := C \cdot gh$$

$D = 0.287919$

Definitions.

$$D - \frac{C \cdot \sqrt{A \cdot B \cdot C - B^2 \cdot C^2}}{A} = 0$$

$$D - \frac{n_1 \cdot \sqrt{n_2 \cdot n_3 - n_1}}{n_3 \cdot \sqrt{n_1 \cdot n_2^2 \cdot n_3^2}} = 0$$



Unit = 1.00000
A = 0.82656
B = 0.70475
C = 0.57593
D = 0.28792

$n_1 = 1.20983$
$n_2 = 1.41894$
$n_3 = 1.73631$

$\frac{C \cdot \sqrt{A \cdot B \cdot C - B^2 \cdot C^2}}{A} - D = 0.00000$

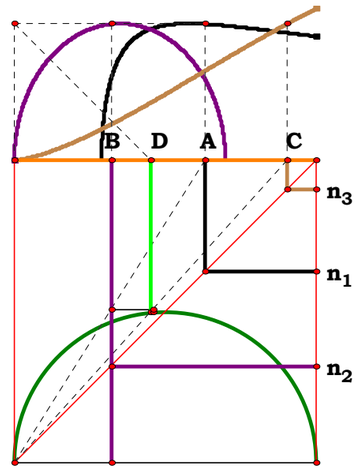
$\frac{n_1 \cdot \sqrt{n_2 \cdot n_3 - n_1}}{n_3 \cdot \sqrt{n_1 \cdot n_2^2 \cdot n_3^2}} - D = 0.00000$

Unit = 1.00000
A = 0.63011
B = 0.32021
C = 0.90196
D = 0.44941

$n_1 = 1.58702$
$n_2 = 3.12299$
$n_3 = 1.10870$

$\frac{C \cdot \sqrt{A \cdot B \cdot C - B^2 \cdot C^2}}{A} - D = 0.00000$

$\frac{n_1 \cdot \sqrt{n_2 \cdot n_3 - n_1}}{n_3 \cdot \sqrt{n_1 \cdot n_2^2 \cdot n_3^2}} - D = 0.00000$



3OBT7R8

Given. $A := .63429$ $B := .20735$ $C := .87688$

$$n_1 := \frac{1}{A} \quad n_2 := \frac{1}{B} \quad n_3 := \frac{1}{C}$$

Descriptions.

$$oq := \frac{B}{A} \qquad bk := C \cdot oq$$

$$jk := \sqrt{bk \cdot (1 - bk)} \qquad be := C \cdot jk$$

$$bm := \frac{be}{1 - jk} \qquad bg := \frac{A \cdot bm}{A + bm}$$

$$fg := \frac{bg}{A} \qquad D := \frac{B}{fg}$$

$D = 0.389047$

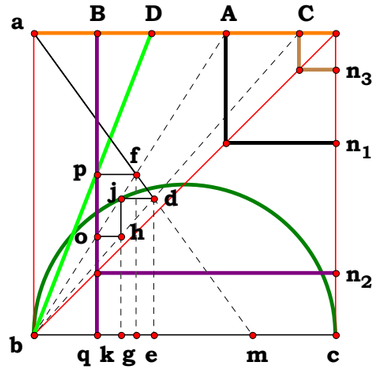
Definitions.

$$D - \frac{A^2 \cdot B - B \cdot (A - C) \cdot \sqrt{A \cdot B \cdot C - B^2 \cdot C^2}}{C \cdot \sqrt{A \cdot B \cdot C - B^2 \cdot C^2}} = 0$$

$$D - \frac{\left(n_1^{\,2} - n_1 \cdot n_3\right) \cdot \sqrt{n_2 \cdot n_3 - n_1} + n_3 \cdot \sqrt{n_1 \cdot n_2^{\,2} \cdot n_3^{\,2}}}{n_1^{\,2} \cdot n_2 \cdot \sqrt{n_2 \cdot n_3 - n_1}} = 0$$

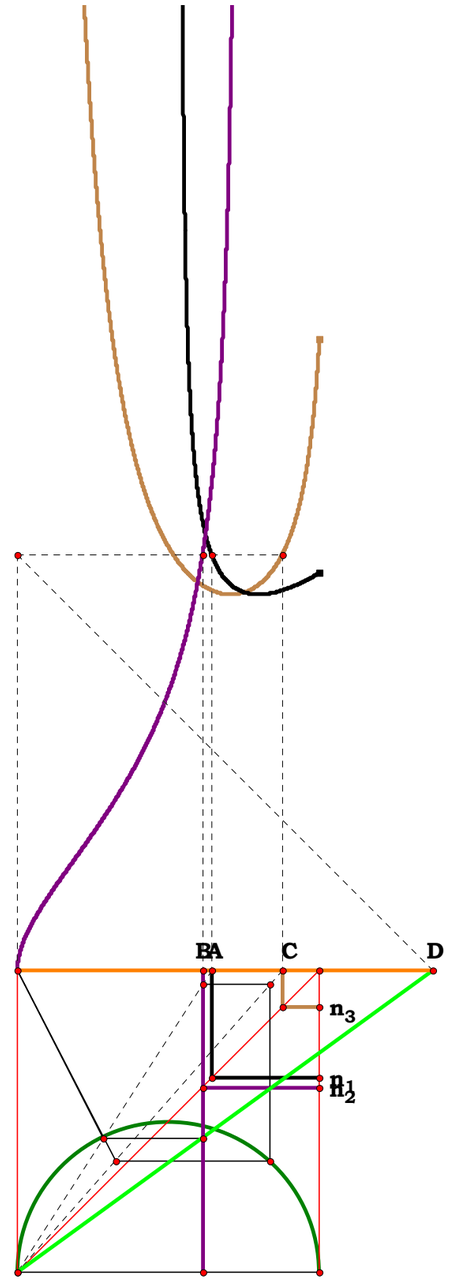
Unit = 1.00000
A = 0.63429
B = 0.20735
C = 0.87688
D = 0.38905

n_1 = 1.57657
n_2 = 4.82276
n_3 = 1.14040



$$\frac{A^2 \cdot B - B \cdot (A - C) \cdot \sqrt{A \cdot B \cdot C - B^2 \cdot C^2}}{C \cdot \sqrt{A \cdot B \cdot C - B^2 \cdot C^2}} - D = 0.00000$$

$$\frac{\left(n_1^{\,2} - n_1 \cdot n_3\right) \cdot \sqrt{n_2 \cdot n_3 - n_1} + n_3 \cdot \sqrt{n_1 \cdot n_2^{\,2} \cdot n_3^{\,2}}}{n_1^{\,2} \cdot n_2 \cdot \sqrt{n_2 \cdot n_3 - n_1}} - D = 0.00000$$



Unit = 1.00000
A = 0.64265
B = 0.61279
C = 0.87688
D = 1.37701

n_1 = 1.55606
n_2 = 1.63187
n_3 = 1.14040

$$\frac{A^2 \cdot B - B \cdot (A - C) \cdot \sqrt{A \cdot B \cdot C - B^2 \cdot C^2}}{C \cdot \sqrt{A \cdot B \cdot C - B^2 \cdot C^2}} - D = 0.00000$$

$$\frac{\left(n_1^{\,2} - n_1 \cdot n_3\right) \cdot \sqrt{n_2 \cdot n_3 - n_1} + n_3 \cdot \sqrt{n_1 \cdot n_2^{\,2} \cdot n_3^{\,2}}}{n_1^{\,2} \cdot n_2 \cdot \sqrt{n_2 \cdot n_3 - n_1}} - D = 0.00000$$

3OBT8R0

Given.

$A := 4.78788 \quad B := 1.48485$

$C := 1.69697 \quad D := 1.33333$

$n_1 := \frac{1}{A} \quad n_2 := \frac{1}{B} \quad n_3 := \frac{1}{C} \quad n_4 := \frac{1}{D}$

Descriptions.

$mo := \frac{B}{A} \quad bp := \frac{B}{1 - mo}$

$bj := \frac{C \cdot bp}{C + bp} \quad jk := D - bj$

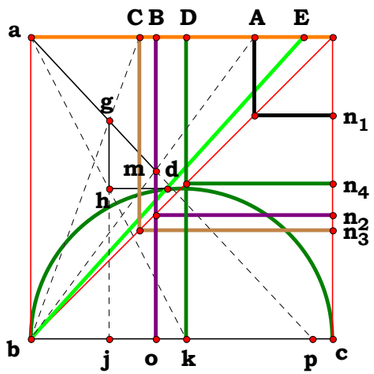
$hj := \frac{jk}{D} \quad ef := \sqrt{\left(\frac{1}{2}\right)^2 - hj^2}$

$be := \frac{1}{2} - ef \quad E := \frac{be}{hj}$

$E = 0.317401$

Unit = 1.00000
A = 0.73879
B = 0.41216
C = 0.35858
D = 0.51535
E = 0.90432

n_1 = 1.35357
n_2 = 2.42623
n_3 = 2.78876
n_4 = 1.94043

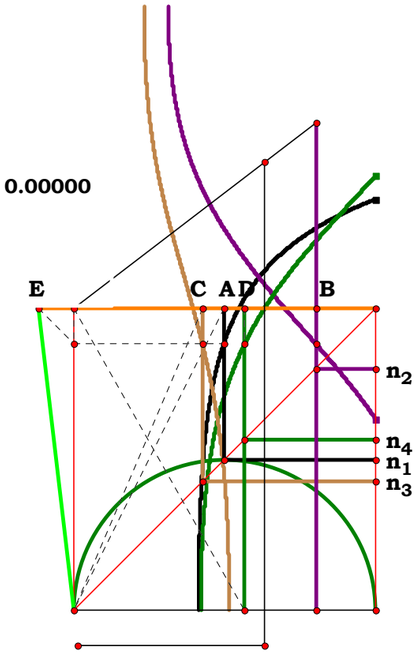


$$\frac{\sqrt{(8\cdot A\cdot B\cdot C\cdot D)\cdot((A\cdot B+A\cdot C)-B\cdot C)-(2\cdot A\cdot B\cdot C)^2-3\cdot D^2\cdot((A\cdot B+A\cdot C)-B\cdot C)^2+(B\cdot C\cdot D-A\cdot B\cdot D-A\cdot C\cdot D)}}{2\cdot((A\cdot B\cdot C-A\cdot B\cdot D-A\cdot C\cdot D)+B\cdot C\cdot D)} - E = 0.00000$$

$$\frac{(n_1-n_2-n_3)+\sqrt{(((n_2-n_1)+n_3)-2\cdot n_4)\cdot((3\cdot n_1-3\cdot n_2-3\cdot n_3)+2\cdot n_4)}}{2\cdot((n_1-n_2-n_3)+n_4)} - E = 0.00000$$

Unit = 1.00000
A = 0.49636
B = 0.80089
C = 0.42546
D = 0.56551
E = -0.11774

n_1 = 2.01468
n_2 = 1.24862
n_3 = 2.35040
n_4 = 1.76832



$$\frac{\sqrt{(8\cdot A\cdot B\cdot C\cdot D)\cdot((A\cdot B+A\cdot C)-B\cdot C)-(2\cdot A\cdot B\cdot C)^2-3\cdot D^2\cdot((A\cdot B+A\cdot C)-B\cdot C)^2+(B\cdot C\cdot D-A\cdot B\cdot D-A\cdot C\cdot D)}}{2\cdot((A\cdot B\cdot C-A\cdot B\cdot D-A\cdot C\cdot D)+B\cdot C\cdot D)} - E = 0.00000$$

$$\frac{(n_1-n_2-n_3)+\sqrt{(((n_2-n_1)+n_3)-2\cdot n_4)\cdot((3\cdot n_1-3\cdot n_2-3\cdot n_3)+2\cdot n_4)}}{2\cdot((n_1-n_2-n_3)+n_4)} - E = 0.00000$$

Definitions.

$$E - \frac{\sqrt{8\cdot A\cdot B\cdot C\cdot D\cdot(A\cdot B+A\cdot C-B\cdot C)-4\cdot A^2\cdot B^2\cdot C^2-3\cdot D^2\cdot(A\cdot B+A\cdot C-B\cdot C)^2}-A\cdot B\cdot D-A\cdot C\cdot D+B\cdot C\cdot D}{2\cdot(A\cdot B\cdot C-A\cdot B\cdot D-A\cdot C\cdot D+B\cdot C\cdot D)} = 0$$

$$E - \frac{n_1-n_2-n_3+\sqrt{(n_2-n_1+n_3-2\cdot n_4)\cdot(3\cdot n_1-3\cdot n_2-3\cdot n_3+2\cdot n_4)}}{2\cdot(n_1-n_2-n_3+n_4)} = 0$$

3OBT8R1

Given.

$A := 2.01010 \qquad B := 1.38384$

$C := 1.28283 \qquad D := 1.12121$

$n_1 := \frac{1}{A} \qquad n_2 := \frac{1}{B} \qquad n_3 := \frac{1}{C} \qquad n_4 := \frac{1}{D}$

Descriptions.

$mo := \frac{B}{A} \qquad bj := C \cdot mo$

$cj := D - bj \qquad hj := \frac{cj}{D}$

$ef := \sqrt{\left(\frac{1}{2}\right)^2 - hj^2} \qquad be := \frac{1}{2} - ef$

$E := \frac{be}{hj} \qquad E = 0.222865$

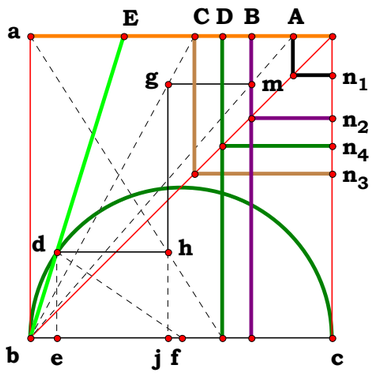
Definitions.

$$E - \frac{A \cdot D \cdot \left(A \cdot D - \sqrt{8 \cdot A \cdot B \cdot C \cdot D - 3 \cdot A^2 \cdot D^2 - 4 \cdot B^2 \cdot C^2}\right)}{2 \cdot (A \cdot D) \cdot (A \cdot D - B \cdot C)} = 0$$

$$E - \frac{\sqrt{\left(n_2 \cdot n_3 - 2 \cdot n_1 \cdot n_4\right) \cdot \left(2 \cdot n_1 \cdot n_4 - 3 \cdot n_2 \cdot n_3\right)} - n_2 \cdot n_3}{2 \cdot \left(n_1 \cdot n_4 - n_2 \cdot n_3\right)} = 0$$

Unit = 1.00000
A = 0.86836
B = 0.72983
C = 0.54250
D = 0.63656
E = 0.31121

n_1 = 1.15160
n_2 = 1.37018
n_3 = 1.84333
n_4 = 1.57093



$$\frac{A \cdot D - \sqrt{8 \cdot A \cdot B \cdot C \cdot D - 3 \cdot A^2 \cdot D^2 - 4 \cdot B^2 \cdot C^2}}{2 \cdot (A \cdot D - B \cdot C)} - E = 0.00000$$

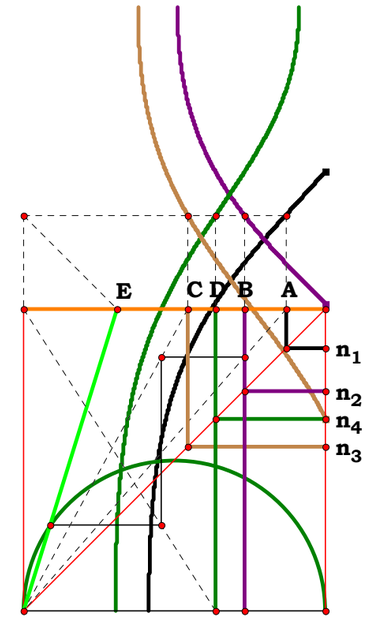
$$\frac{\sqrt{\left(n_2 \cdot n_3 - 2 \cdot n_1 \cdot n_4\right) \cdot \left(2 \cdot n_1 \cdot n_4 - 3 \cdot n_2 \cdot n_3\right)} - n_2 \cdot n_3}{2 \cdot \left(n_1 \cdot n_4 - n_2 \cdot n_3\right)} - E = 0.00000$$

Unit = 1.00000
A = 0.86836
B = 0.72983
C = 0.54250
D = 0.63656
E = 0.31121

n_1 = 1.15160
n_2 = 1.37018
n_3 = 1.84333
n_4 = 1.57093

$$\frac{A \cdot D - \sqrt{8 \cdot A \cdot B \cdot C \cdot D - 3 \cdot A^2 \cdot D^2 - 4 \cdot B^2 \cdot C^2}}{2 \cdot (A \cdot D - B \cdot C)} - E = 0.00000$$

$$\frac{\sqrt{\left(n_2 \cdot n_3 - 2 \cdot n_1 \cdot n_4\right) \cdot \left(2 \cdot n_1 \cdot n_4 - 3 \cdot n_2 \cdot n_3\right)} - n_2 \cdot n_3}{2 \cdot \left(n_1 \cdot n_4 - n_2 \cdot n_3\right)} - E = 0.00000$$



3OBT8R2

Given.

$A := .56323 \qquad B := .32857$

$C := .67625 \qquad D := .61566$

$n_1 := \frac{1}{A} \qquad n_2 := \frac{1}{B} \qquad n_3 := \frac{1}{C} \qquad n_4 := \frac{1}{D}$

Descriptions.

$qt := \frac{B}{A} \qquad bo := C \cdot qt \qquad op := D - bo$

$mo := \frac{op}{D} \qquad en := \sqrt{\left(\frac{1}{2}\right)^2 - mo^2}$

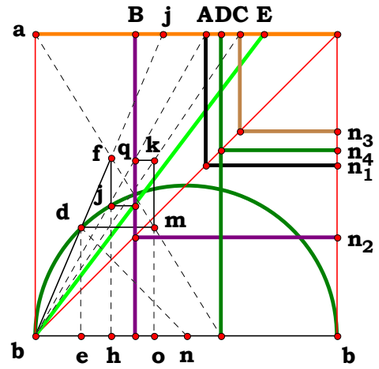
$be := \frac{1}{2} - en \qquad aj := \frac{be}{mo}$

$bh := \frac{aj \cdot D}{aj + D} \qquad gh := \sqrt{bh \cdot (1 - bh)}$

$E := \frac{B}{gh} \qquad E = 0.757811$

Definitions.

$$E - \frac{A \cdot B \cdot D \cdot \left[2 \cdot A \cdot D^2 - \sqrt{(A \cdot D - 2 \cdot B \cdot C) \cdot (2 \cdot B \cdot C - 3 \cdot A \cdot D)} + A \cdot D - 2 \cdot B \cdot C \cdot D\right]}{\sqrt{2 \cdot A^2 \cdot D^3 \cdot \left(\begin{array}{l} 2 \cdot A^2 \cdot D^3 - 2 \cdot B^2 \cdot C^2 - A^2 \cdot D^2 - A \cdot D \cdot \sqrt{8 \cdot A \cdot B \cdot C \cdot D - 3 \cdot A^2 \cdot D^2 - 4 \cdot B^2 \cdot C^2} \ \ldots \\ + \ 2 \cdot B^2 \cdot C^2 \cdot D + 4 \cdot A \cdot B \cdot C \cdot D + B \cdot C \cdot D \cdot \sqrt{8 \cdot A \cdot B \cdot C \cdot D - 3 \cdot A^2 \cdot D^2 - 4 \cdot B^2 \cdot C^2} - 5 \cdot A \cdot B \cdot C \cdot D^2 \end{array}\right)}} = 0$$

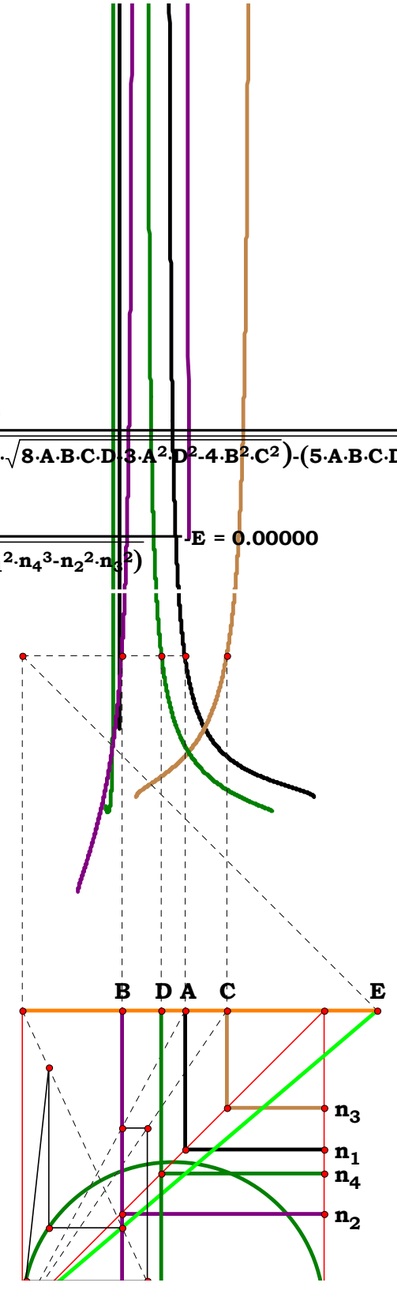


Unit = 1.00000
A = 0.56323
B = 0.32857
C = 0.67625
D = 0.61566
E = 0.75779

$n_1 = 1.77546$
$n_2 = 3.04353$
$n_3 = 1.47874$
$n_4 = 1.62426$

$$\frac{(A \cdot B \cdot D) \cdot \left(\left(\left(2 \cdot A \cdot D^2\right) - \sqrt{(A \cdot D - 2 \cdot B \cdot C) \cdot (2 \cdot B \cdot C - 3 \cdot A \cdot D)}\right) + (A \cdot D - 2 \cdot B \cdot C \cdot D)\right)}{\sqrt{(2 \cdot A^2 \cdot D^3) \cdot \left(\left(\left(\left(2 \cdot A^2 \cdot D^3 - 2 \cdot B^2 \cdot C^2 - A^2 \cdot D^2\right) - (A \cdot D) \cdot \sqrt{8 \cdot A \cdot B \cdot C \cdot D - 3 \cdot A^2 \cdot D^2 - 4 \cdot B^2 \cdot C^2}\right) + (2 \cdot B^2 \cdot C^2 \cdot D + 4 \cdot A \cdot B \cdot C \cdot D) + (B \cdot C \cdot D) \cdot \sqrt{8 \cdot A \cdot B \cdot C \cdot D - 3 \cdot A^2 \cdot D^2 - 4 \cdot B^2 \cdot C^2}\right) - (5 \cdot A \cdot B \cdot C \cdot D^2)\right)}} - E = 0.00000$$

$$\frac{\sqrt{2} \cdot \left(n_2 \cdot n_3 \cdot n_4 - n_4 \cdot \sqrt{8 \cdot n_1 \cdot n_2 \cdot n_3 \cdot n_4 - 4 \cdot n_1^2 \cdot n_4^2 - 3 \cdot n_2^2 \cdot n_3^2} - 2 \cdot (n_1 \cdot n_4 - n_2 \cdot n_3)\right)}{2 \cdot n_2 \cdot \sqrt{2 \cdot n_1 \cdot n_4^2 \cdot (2 \cdot n_2 \cdot n_3 + n_1) - n_4 \cdot \left(n_2^2 \cdot n_3^2 + \sqrt{(2 \cdot n_1 \cdot n_4 - 3 \cdot n_2 \cdot n_3) \cdot (n_2 \cdot n_3 - 2 \cdot n_1 \cdot n_4)} \cdot (n_2 \cdot n_3 - n_1) + 5 \cdot n_1 \cdot n_2 \cdot n_3\right) - 2 \cdot \left(n_1^2 \cdot n_4^3 - n_2^2 \cdot n_3^2\right)}} - E = 0.00000$$



Unit = 1.00000
A = 0.53815
B = 0.32857
C = 0.67625
D = 0.46101
E = 1.17255

$n_1 = 1.85820$
$n_2 = 3.04353$
$n_3 = 1.47874$

$$E - \frac{\sqrt{2} \cdot \left[n_2 \cdot n_3 \cdot n_4 - n_4 \cdot \sqrt{8 \cdot n_1 \cdot n_2 \cdot n_3 \cdot n_4 - 4 \cdot n_1^2 \cdot n_4^2 - 3 \cdot n_2^2 \cdot n_3^2} - 2 \cdot \left(n_1 \cdot n_4 - n_2 \cdot n_3\right)\right]}{2 \cdot n_2 \cdot \sqrt{2 \cdot n_1 \cdot n_4^2 \cdot \left(2 \cdot n_2 \cdot n_3 + n_1\right) - n_4 \cdot \left[n_2^2 \cdot n_3^2 + \sqrt{\left(2 \cdot n_1 \cdot n_4 - 3 \cdot n_2 \cdot n_3\right) \cdot \left(n_2 \cdot n_3 - 2 \cdot n_1 \cdot n_4\right)} \cdot \left(n_2 \cdot n_3 - n_1\right) + 5 \cdot n_1 \cdot n_2 \cdot n_3\right] - 2 \cdot \left(n_1^2 \cdot n_4^3 - n_2^2 \cdot n_3^2\right)}} = 0$$

3OBT8R3

Given.

$A := 2.86869 \qquad B := 1.35354$

$C := 1.24242 \qquad D := 1.11111$

$n_1 := \frac{1}{A} \qquad n_2 := \frac{1}{B} \qquad n_3 := \frac{1}{C} \qquad n_4 := \frac{1}{D}$

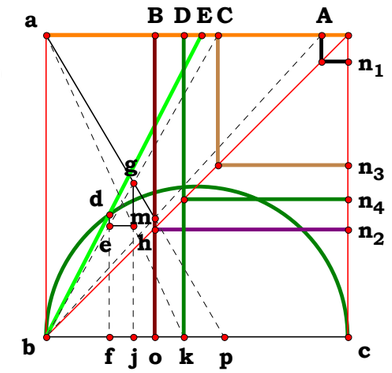
Descriptions.

$mo := \frac{B}{A} \qquad bp := \frac{B}{1 - mo} \qquad bj := \frac{C \cdot bp}{bp + C}$

$jk := D - bj \qquad HJ := \frac{jk}{D} \qquad bf := C \cdot HJ$

$df := \sqrt{bf \cdot (1 - bf)} \qquad E := \frac{bf}{df}$

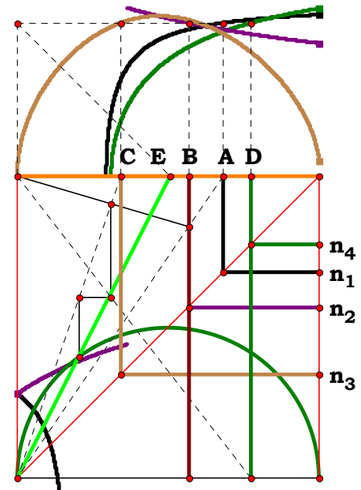
$E = 0.665236$



Unit = 1.00000
A = 0.91016
B = 0.35782
C = 0.56757
D = 0.45683
E = 0.51289
n_1 = 1.09871
n_2 = 2.79467
n_3 = 1.76188
n_4 = 2.18899

$$\frac{(C \cdot D \cdot ((A \cdot B + A \cdot C) - B \cdot C) \cdot (D \cdot ((A \cdot B + A \cdot C) - B \cdot C) - (A \cdot B \cdot C)))}{(D \cdot ((A \cdot B + A \cdot C) - B \cdot C) \cdot \sqrt{(A \cdot B \cdot C^2 \cdot D \cdot (2 \cdot C - 1)) \cdot ((A \cdot B + A \cdot C) - B \cdot C) - (C \cdot D^2 \cdot (C - 1)) \cdot ((A \cdot B + A \cdot C) - B \cdot C)^2 - (A^2 \cdot B^2 \cdot C^4)})} - E = 0.00000$$

$$\frac{((n_2 - n_1) + n_3) - n_4}{\sqrt{((n_1 - n_2 - n_3) + n_4) \cdot (((((n_2 - n_1) + n_3) - n_4 - n_3^2) + n_1 \cdot n_3) - n_2 \cdot n_3)}} - E = 0.00000$$



Unit = 1.00000
A = 0.68027
B = 0.56682
C = 0.34186
D = 0.77450
E = 0.50742
n_1 = 1.47001
n_2 = 1.76424
n_3 = 2.92515
n_4 = 1.29116

$$\frac{(C \cdot D \cdot ((A \cdot B + A \cdot C) - B \cdot C) \cdot (D \cdot ((A \cdot B + A \cdot C) - B \cdot C) - (A \cdot B \cdot C)))}{(D \cdot ((A \cdot B + A \cdot C) - B \cdot C) \cdot \sqrt{(A \cdot B \cdot C^2 \cdot D \cdot (2 \cdot C - 1)) \cdot ((A \cdot B + A \cdot C) - B \cdot C) - (C \cdot D^2 \cdot (C - 1)) \cdot ((A \cdot B + A \cdot C) - B \cdot C)^2 - (A^2 \cdot B^2 \cdot C^4)})} - E = 0.00000$$

$$\frac{((n_2 - n_1) + n_3) - n_4}{\sqrt{((n_1 - n_2 - n_3) + n_4) \cdot (((((n_2 - n_1) + n_3) - n_4 - n_3^2) + n_1 \cdot n_3) - n_2 \cdot n_3)}} - E = 0.00000$$

Definitions.

$$E - \frac{C \cdot [D \cdot (A \cdot B + A \cdot C - B \cdot C)] \cdot [D \cdot (A \cdot B + A \cdot C - B \cdot C) - A \cdot B \cdot C]}{D \cdot (A \cdot B + A \cdot C - B \cdot C) \cdot \sqrt{D \cdot A \cdot B \cdot C^2 \cdot (2 \cdot C - 1) \cdot (A \cdot B + A \cdot C - B \cdot C) - C \cdot D^2 \cdot (C - 1) \cdot (A \cdot B + A \cdot C - B \cdot C)^2 - A^2 \cdot B^2 \cdot C^4}} = 0$$

$$E - \frac{(n_2 - n_1 + n_3 - n_4)}{\sqrt{(n_1 - n_2 - n_3 + n_4) \cdot (n_2 - n_1 + n_3 - n_4 - n_3^2 + n_1 \cdot n_3 - n_2 \cdot n_3)}} = 0$$

3OBT8R4

Given.

$A := .88090 \qquad B := .52920$

$C := .79328 \qquad D := .71180$

$n_1 := \frac{1}{A} \quad n_2 := \frac{1}{B} \quad n_3 := \frac{1}{C} \quad n_4 := \frac{1}{D}$

Descriptions.

$bs := C \cdot \frac{B}{A} \qquad de := \frac{D - bs}{D}$

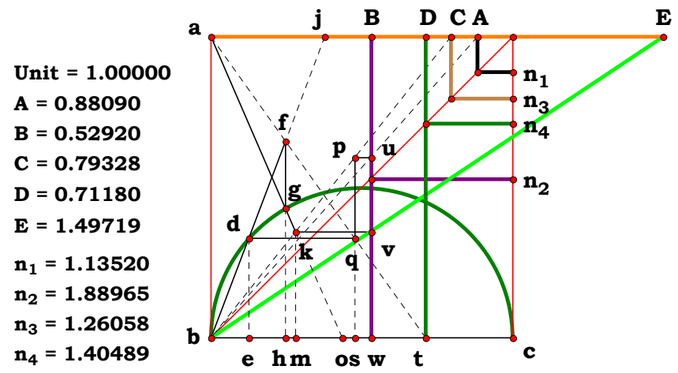
$be := \frac{1}{2} - \sqrt{\left(\frac{1}{2}\right)^2 - de^2} \qquad aj := \frac{be}{de}$

$bh := \frac{aj \cdot D}{aj + D} \qquad gh := \sqrt{bh \cdot (1 - bh)}$

$bo := \frac{bh}{1 - gh} \qquad bm := \frac{C \cdot bo}{C + bo}$

$vw := \frac{bm}{C} \qquad E := \frac{B}{vw}$

$E = 1.497197$

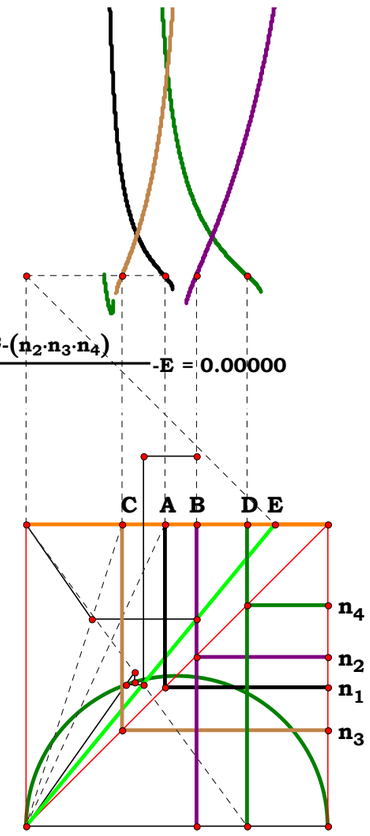


Unit = 1.00000
A = 0.88090
B = 0.52920
C = 0.79328
D = 0.71180
E = 1.49719

$n_1 = 1.13520$
$n_2 = 1.88965$
$n_3 = 1.26058$
$n_4 = 1.40489$

$$X - \sqrt{(n_2 \cdot n_3 - 2 \cdot n_1 \cdot n_4) \cdot (2 \cdot n_1 \cdot n_4 - 3 \cdot n_2 \cdot n_3)} = 0.00000$$

$$\frac{\left(\sqrt{2} \cdot \sqrt{((n_4 \cdot (n_1 - n_2 \cdot n_3)) \cdot X - (n_2^2 \cdot n_3^2 \cdot (n_4 - 2)) - (2 \cdot n_1^2 \cdot n_4^2 \cdot (n_4 - 1))) + (n_1 \cdot n_2 \cdot n_3 \cdot n_4 \cdot (4 \cdot n_4 - 5))} + (2 \cdot n_1 \cdot n_4 - 2 \cdot n_2 \cdot n_3) + n_3 \cdot X + n_4 \cdot X\right) - n_2 \cdot n_3^2 - (n_2 \cdot n_3 \cdot n_4)}{(n_2 \cdot n_3) \cdot (X - (n_2 \cdot n_3))} - E = 0.00000$$



Unit = 1.00000
A = 0.45874
B = 0.56264
C = 0.31678
D = 0.73270
E = 0.82190

$n_1 = 2.17990$
$n_2 = 1.77735$
$n_3 = 3.15672$
$n_4 = 1.36481$

$$X - \sqrt{(n_2 \cdot n_3 - 2 \cdot n_1 \cdot n_4) \cdot (2 \cdot n_1 \cdot n_4 - 3 \cdot n_2 \cdot n_3)} = 0.00000$$

$$\frac{\left(\sqrt{2} \cdot \sqrt{((n_4 \cdot (n_1 - n_2 \cdot n_3)) \cdot X - (n_2^2 \cdot n_3^2 \cdot (n_4 - 2)) - (2 \cdot n_1^2 \cdot n_4^2 \cdot (n_4 - 1))) + (n_1 \cdot n_2 \cdot n_3 \cdot n_4 \cdot (4 \cdot n_4 - 5))} + (2 \cdot n_1 \cdot n_4 - 2 \cdot n_2 \cdot n_3) + n_3 \cdot X + n_4 \cdot X\right) - n_2 \cdot n_3^2 - (n_2 \cdot n_3 \cdot n_4)}{(n_2 \cdot n_3) \cdot (X - (n_2 \cdot n_3))} - E = 0.00000$$

Definitions.

$$E - \frac{\sqrt{A^2 \cdot D} \cdot B \cdot \left[2 \cdot B \cdot C^2 \cdot D - 2 \cdot A \cdot C \cdot D^2 - A \cdot C \cdot D + \sqrt{(A \cdot D - 2 \cdot B \cdot C) \cdot (2 \cdot B \cdot C - 3 \cdot A \cdot D)} \cdot (C + D) - A \cdot D^2\right] \ \ldots}{+ \sqrt{2} \cdot \sqrt{A^2 \cdot D^2 \cdot (2 \cdot D - 1) - A \cdot B \cdot C \cdot D \cdot (5 \cdot D - 4) + 2 \cdot B^2 \cdot C^2 \cdot (D - 1) - \sqrt{(A \cdot D - 2 \cdot B \cdot C) \cdot (2 \cdot B \cdot C - 3 \cdot A \cdot D)} \cdot D \cdot (A - B \cdot C) \cdot A \cdot B \cdot C \cdot D} = 0$$
$$\left[\sqrt{(A \cdot D - 2 \cdot B \cdot C) \cdot (2 \cdot B \cdot C - 3 \cdot A \cdot D)} - A \cdot D\right] \cdot \sqrt{A^2 \cdot D} \cdot D$$

$$E - \frac{\sqrt{2} \cdot \sqrt{n_4 \cdot (n_1 - n_2 \cdot n_3) \cdot \sqrt{(n_2 \cdot n_3 - 2 \cdot n_1 \cdot n_4) \cdot (2 \cdot n_1 \cdot n_4 - 3 \cdot n_2 \cdot n_3)} - n_2^2 \cdot n_3^2 \cdot (n_4 - 2) - 2 \cdot n_1^2 \cdot n_4^2 \cdot (n_4 - 1) + n_1 \cdot n_2 \cdot n_3 \cdot n_4 \cdot (4 \cdot n_4 - 5)} \ \ldots}{+ 2 \cdot n_1 \cdot n_4 - 2 \cdot n_2 \cdot n_3 + n_3 \cdot \sqrt{(n_2 \cdot n_3 - 2 \cdot n_1 \cdot n_4) \cdot (2 \cdot n_1 \cdot n_4 - 3 \cdot n_2 \cdot n_3)} + n_4 \cdot \sqrt{(n_2 \cdot n_3 - 2 \cdot n_1 \cdot n_4) \cdot (2 \cdot n_1 \cdot n_4 - 3 \cdot n_2 \cdot n_3)} - n_2 \cdot n_3^2 - n_2 \cdot n_3 \cdot n_4} = 0$$
$$n_2 \cdot n_3 \cdot \left[\sqrt{(n_2 \cdot n_3 - 2 \cdot n_1 \cdot n_4) \cdot (2 \cdot n_1 \cdot n_4 - 3 \cdot n_2 \cdot n_3)} - n_2 \cdot n_3\right]$$

3OBT8R5

Given.

$A := .74297 \qquad B := .60861$

$C := .44636 \qquad D := .54043$

$n_1 := \frac{1}{A} \quad n_2 := \frac{1}{B} \quad n_3 := \frac{1}{C} \quad n_4 := \frac{1}{D}$

Descriptions.

$su := \frac{B}{A} \qquad bp := C \cdot su$

$op := \frac{D - bp}{D} \qquad ek := \sqrt{\left(\frac{1}{2}\right)^2 - op^2}$

$be := \frac{1}{2} - ek \qquad aj := \frac{be}{op}$

$bh := \frac{aj \cdot D}{aj + D} \qquad gh := \frac{bh}{C}$

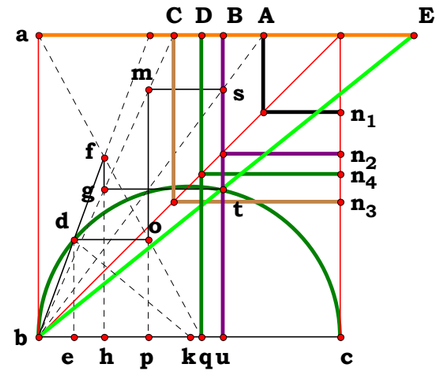
$E := \frac{B}{gh} \qquad E = 1.242912$

Definitions.

$$E - \frac{B \cdot C \cdot \left[A \cdot D^2 + D \cdot \sqrt{(A \cdot D - 2 \cdot B \cdot C) \cdot (2 \cdot B \cdot C - 3 \cdot A \cdot D)} + 2 \cdot A \cdot D - 2 \cdot B \cdot C\right]}{2 \cdot D \cdot (A \cdot D - B \cdot C)} = 0$$

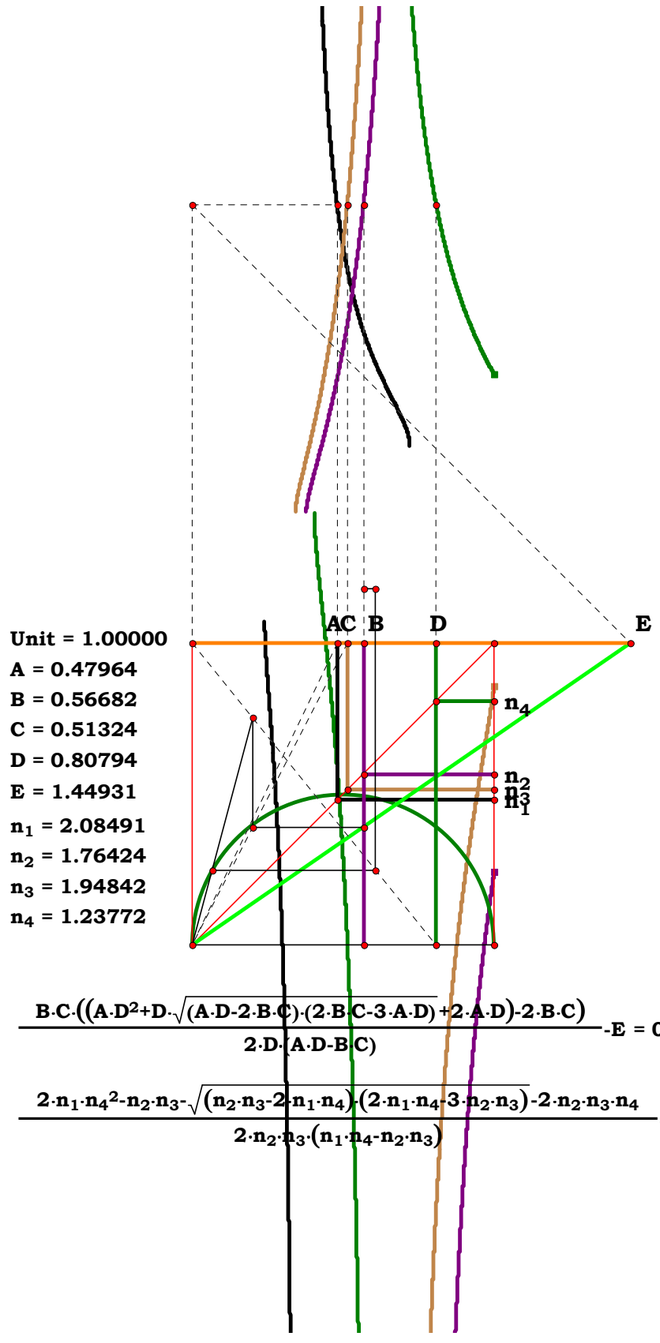
$$E - \frac{2 \cdot n_1 \cdot n_4^2 - n_2 \cdot n_3 - \sqrt{\left(n_2 \cdot n_3 - 2 \cdot n_1 \cdot n_4\right) \cdot \left(2 \cdot n_1 \cdot n_4 - 3 \cdot n_2 \cdot n_3\right)} - 2 \cdot n_2 \cdot n_3 \cdot n_4}{2 \cdot n_2 \cdot n_3 \cdot \left(n_1 \cdot n_4 - n_2 \cdot n_3\right)} = 0$$

Unit = 1.00000
A = 0.74297
B = 0.60861
C = 0.44636
D = 0.54043
E = 1.24295
n_1 = 1.34596
n_2 = 1.64308
n_3 = 2.24035
n_4 = 1.85039



$$\frac{B \cdot C \cdot \left(\left(A \cdot D^2 + D \cdot \sqrt{(A \cdot D - 2 \cdot B \cdot C) \cdot (2 \cdot B \cdot C - 3 \cdot A \cdot D)} + 2 \cdot A \cdot D\right) - 2 \cdot B \cdot C\right)}{2 \cdot D \cdot (A \cdot D - B \cdot C)} - E = 0.00000$$

$$\frac{2 \cdot n_1 \cdot n_4^2 - n_2 \cdot n_3 - \sqrt{(n_2 \cdot n_3 - 2 \cdot n_1 \cdot n_4) \cdot (2 \cdot n_1 \cdot n_4 - 3 \cdot n_2 \cdot n_3)} - 2 \cdot n_2 \cdot n_3 \cdot n_4}{2 \cdot n_2 \cdot n_3 \cdot (n_1 \cdot n_4 - n_2 \cdot n_3)} - E = 0.00000$$



$$\frac{B \cdot C \cdot \left(\left(A \cdot D^2 + D \cdot \sqrt{(A \cdot D - 2 \cdot B \cdot C) \cdot (2 \cdot B \cdot C - 3 \cdot A \cdot D)} + 2 \cdot A \cdot D\right) - 2 \cdot B \cdot C\right)}{2 \cdot D \cdot (A \cdot D - B \cdot C)} - E = 0.00000$$

$$\frac{2 \cdot n_1 \cdot n_4^2 - n_2 \cdot n_3 - \sqrt{(n_2 \cdot n_3 - 2 \cdot n_1 \cdot n_4) \cdot (2 \cdot n_1 \cdot n_4 - 3 \cdot n_2 \cdot n_3)} - 2 \cdot n_2 \cdot n_3 \cdot n_4}{2 \cdot n_2 \cdot n_3 \cdot (n_1 \cdot n_4 - n_2 \cdot n_3)} - E = 0.00000$$

3OBT8R6

Given.

$A := .83074 \qquad B := .42470$

$C := .75149 \qquad D := .56133$

$n_1 := \frac{1}{A} \quad n_2 := \frac{1}{B} \quad n_3 := \frac{1}{C} \quad n_4 := \frac{1}{D}$

Descriptions.

$qs := \frac{B}{A} \qquad bm := C \cdot qs \qquad km := \frac{D - bm}{D}$

$bf := \frac{1}{2} - \sqrt{\left(\frac{1}{2}\right)^2 - km^2} \qquad ah := \frac{bf}{km} \qquad bd := \frac{D}{D + ah}$

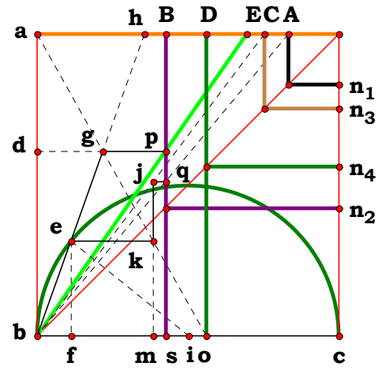
$E := \frac{B}{bd} \qquad E = 0.693635$

Definitions.

$$E - \frac{A \cdot B \cdot D^2 \cdot [A + 2 \cdot (A \cdot D - B \cdot C)] - B \cdot (A \cdot D) \cdot \sqrt{(A \cdot D - 2 \cdot B \cdot C) \cdot (2 \cdot B \cdot C - 3 \cdot A \cdot D)}}{2 \cdot A \cdot D^2 \cdot (A \cdot D - B \cdot C)} = 0$$

$$E - \frac{2 \cdot n_1 \cdot n_4 - 2 \cdot n_2 \cdot n_3 + n_4 \cdot \sqrt{(n_2 \cdot n_3 - 2 \cdot n_1 \cdot n_4) \cdot (2 \cdot n_1 \cdot n_4 - 3 \cdot n_2 \cdot n_3)} - n_2 \cdot n_3 \cdot n_4}{2 \cdot n_2 \cdot (n_1 \cdot n_4 - n_2 \cdot n_3)} = 0$$

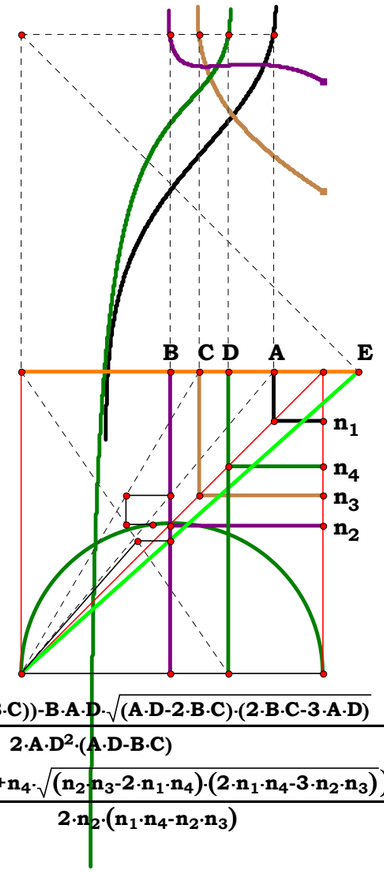
Unit = 1.00000
A = 0.83074
B = 0.42470
C = 0.75149
D = 0.56133
E = 0.69364
n_1 = 1.20374
n_2 = 2.35459
n_3 = 1.33070
n_4 = 1.78149



$$\frac{A \cdot B \cdot D^2 \cdot (A + 2 \cdot (A \cdot D - B \cdot C)) - B \cdot A \cdot D \cdot \sqrt{(A \cdot D - 2 \cdot B \cdot C) \cdot (2 \cdot B \cdot C - 3 \cdot A \cdot D)}}{2 \cdot A \cdot D^2 \cdot (A \cdot D - B \cdot C)} - E = 0.00000$$

$$\frac{\left((2 \cdot n_1 \cdot n_4 - 2 \cdot n_2 \cdot n_3) + n_4 \cdot \sqrt{(n_2 \cdot n_3 - 2 \cdot n_1 \cdot n_4) \cdot (2 \cdot n_1 \cdot n_4 - 3 \cdot n_2 \cdot n_3)}\right) - n_2 \cdot n_3 \cdot n_4}{2 \cdot n_2 \cdot (n_1 \cdot n_4 - n_2 \cdot n_3)} - E = 0.00000$$

Unit = 1.00000
A = 0.83492
B = 0.49158
C = 0.58847
D = 0.68672
E = 1.11687
n_1 = 1.19772
n_2 = 2.03426
n_3 = 1.69931
n_4 = 1.45619



$$\frac{A \cdot B \cdot D^2 \cdot (A + 2 \cdot (A \cdot D - B \cdot C)) - B \cdot A \cdot D \cdot \sqrt{(A \cdot D - 2 \cdot B \cdot C) \cdot (2 \cdot B \cdot C - 3 \cdot A \cdot D)}}{2 \cdot A \cdot D^2 \cdot (A \cdot D - B \cdot C)} - E = 0.00000$$

$$\frac{\left((2 \cdot n_1 \cdot n_4 - 2 \cdot n_2 \cdot n_3) + n_4 \cdot \sqrt{(n_2 \cdot n_3 - 2 \cdot n_1 \cdot n_4) \cdot (2 \cdot n_1 \cdot n_4 - 3 \cdot n_2 \cdot n_3)}\right) - n_2 \cdot n_3 \cdot n_4}{2 \cdot n_2 \cdot (n_1 \cdot n_4 - n_2 \cdot n_3)} - E = 0.00000$$

3OBT8R7

Given.

$A := .73879 \qquad B := .63787$

$C := .26663 \qquad D := .45265$

$n_1 := \frac{1}{A} \quad n_2 := \frac{1}{B} \quad n_3 := \frac{1}{C} \quad n_4 := \frac{1}{D}$

Descriptions.

$lm := \frac{B}{A} \qquad bg := C \cdot lm$

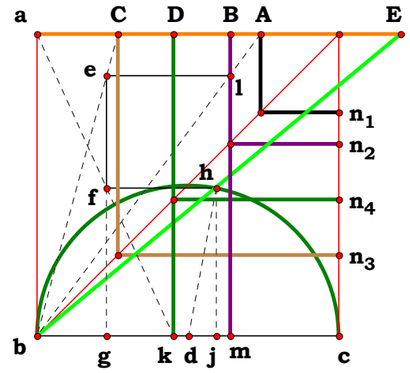
$fg := \frac{D - bg}{D} \qquad bj := \frac{1}{2} + \sqrt{\left(\frac{1}{2}\right)^2 - fg^2}$

$E := \frac{bj}{fg} \qquad E = 1.205115$

Definitions.

$$E - \frac{\sqrt{(A \cdot D - 2 \cdot B \cdot C) \cdot (2 \cdot B \cdot C - 3 \cdot A \cdot D)} + A \cdot D}{2 \cdot (A \cdot D - B \cdot C)} = 0$$

$$E - \frac{\sqrt{\left(n_2 \cdot n_3 - 2 \cdot n_1 \cdot n_4\right) \cdot \left(2 \cdot n_1 \cdot n_4 - 3 \cdot n_2 \cdot n_3\right)} + n_2 \cdot n_3}{2 \cdot \left(n_2 \cdot n_3 - n_1 \cdot n_4\right)} = 0$$

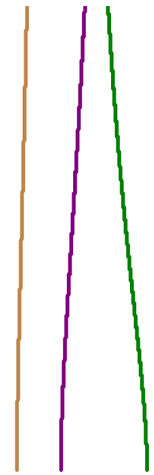


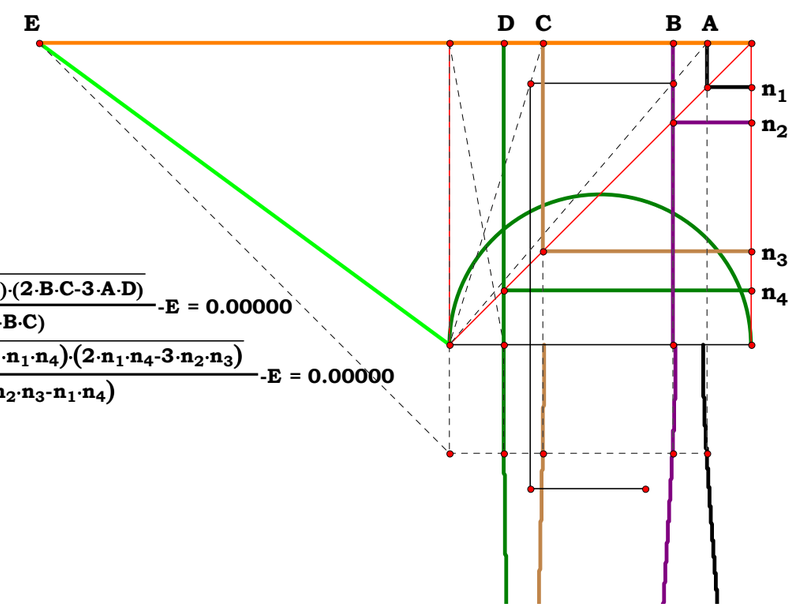
Unit = 1.00000
A = 0.73879
B = 0.63787
C = 0.26663
D = 0.45265
E = 1.20506

n_1 = 1.35357
n_2 = 1.56771
n_3 = 3.75057
n_4 = 2.20920

$$\frac{A \cdot D + \sqrt{(A \cdot D - 2 \cdot B \cdot C) \cdot (2 \cdot B \cdot C - 3 \cdot A \cdot D)}}{2 \cdot (A \cdot D - B \cdot C)} - E = 0.00000$$

$$\frac{n_2 \cdot n_3 + \sqrt{\left(n_2 \cdot n_3 - 2 \cdot n_1 \cdot n_4\right) \cdot \left(2 \cdot n_1 \cdot n_4 - 3 \cdot n_2 \cdot n_3\right)}}{2 \cdot \left(n_2 \cdot n_3 - n_1 \cdot n_4\right)} - E = 0.00000$$





Unit = 1.00000
A = 0.85164
B = 0.73819
C = 0.30842
D = 0.18096
E = -1.35954

n_1 = 1.17420
n_2 = 1.35467
n_3 = 3.24228
n_4 = 5.52601

$$\frac{A \cdot D + \sqrt{(A \cdot D - 2 \cdot B \cdot C) \cdot (2 \cdot B \cdot C - 3 \cdot A \cdot D)}}{2 \cdot (A \cdot D - B \cdot C)} - E = 0.00000$$

$$\frac{n_2 \cdot n_3 + \sqrt{\left(n_2 \cdot n_3 - 2 \cdot n_1 \cdot n_4\right) \cdot \left(2 \cdot n_1 \cdot n_4 - 3 \cdot n_2 \cdot n_3\right)}}{2 \cdot \left(n_2 \cdot n_3 - n_1 \cdot n_4\right)} - E = 0.00000$$

3OBT8R8

Given.

$A := .86000 \qquad B := .50830$

$C := .23319 \qquad D := .59895$

$n_1 := \frac{1}{A} \quad n_2 := \frac{1}{B} \quad n_3 := \frac{1}{C} \quad n_4 := \frac{1}{D}$

Descriptions.

$bA := \sqrt{1 + A^2} \qquad bg := \frac{A}{bA}$

$gh := \frac{bg}{bA} \qquad bh := A \cdot gh$

$bk := \frac{bh}{1 - gh} \qquad bf := \frac{C \cdot bk}{C + bk}$

$ef := \frac{D - bf}{D} \qquad E := \frac{B}{ef}$

$E = 0.731157$

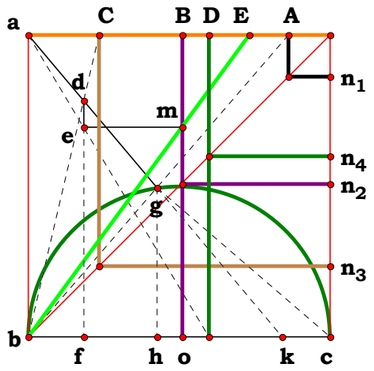
Definitions.

$$E - \frac{B \cdot D \cdot \left[A^2 + C + A \cdot C \cdot (A - 1)\right]}{A^2 \cdot D + C \cdot \left(D - A^2\right) + A \cdot C \cdot D \cdot (A - 1)} = 0$$

$$E - \frac{{n_1}^2 - n_1 + n_3 + 1}{n_2 \cdot \left({n_1}^2 - n_1 + n_3 - n_4 + 1\right)} = 0$$

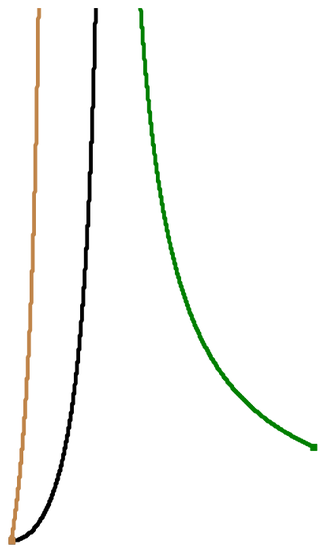
Unit = 1.00000
A = 0.86000
B = 0.50830
C = 0.23319
D = 0.59895
E = 0.73115

$n_1 = 1.16279$
$n_2 = 1.96735$
$n_3 = 4.28839$
$n_4 = 1.66960$



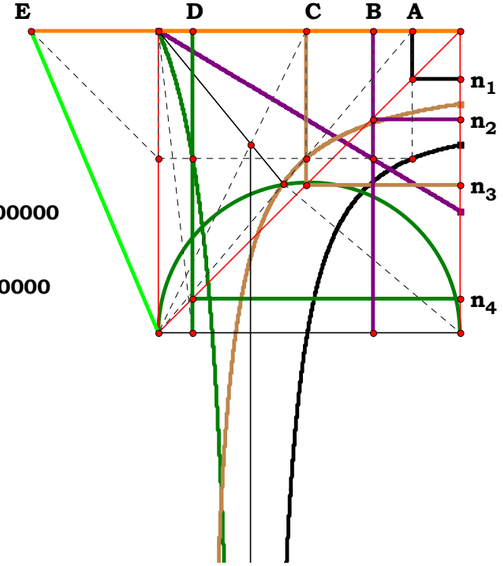
$$\frac{B \cdot D \cdot \left(A^2 + C + A \cdot C \cdot (A-1)\right)}{A^2 \cdot D + C \cdot \left(D - A^2\right) + A \cdot C \cdot D \cdot (A-1)} - E = 0.00000$$

$$\frac{\left({n_1}^2 - n_1\right) + n_3 + 1}{n_2 \cdot \left(\left(\left({n_1}^2 - n_1\right) + n_3\right) - n_4\right) + 1)} - E = 0.00000$$



Unit = 1.00000
A = 0.83910
B = 0.70893
C = 0.48816
D = 0.11409
E = -0.42330

$n_1 = 1.19175$
$n_2 = 1.41058$
$n_3 = 2.04852$
$n_4 = 8.76538$



$$\frac{B \cdot D \cdot \left(A^2 + C + A \cdot C \cdot (A-1)\right)}{A^2 \cdot D + C \cdot \left(D - A^2\right) + A \cdot C \cdot D \cdot (A-1)} - E = 0.00000$$

$$\frac{\left({n_1}^2 - n_1\right) + n_3 + 1}{n_2 \cdot \left(\left(\left({n_1}^2 - n_1\right) + n_3\right) - n_4\right) + 1)} - E = 0.00000$$

3OBT8R9

Given.

$A := .72831 \qquad B := .44560$

$C := .37112 \qquad D := .54879$

$n_1 := \frac{1}{A} \quad n_2 := \frac{1}{B} \quad n_3 := \frac{1}{C} \quad n_4 := \frac{1}{D}$

Descriptions.

$mo := \frac{B}{A} \qquad bp := \frac{B}{1 - mo}$

$bg := \frac{C \cdot bp}{C + bp} \qquad fg := \frac{D - bg}{D}$

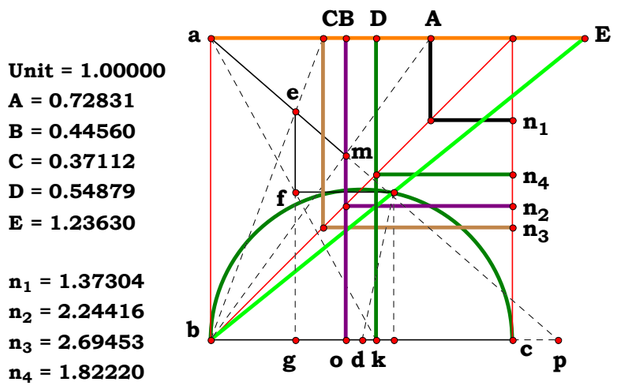
$bj := \frac{1}{2} + \sqrt{\left(\frac{1}{2}\right)^2 - fg^2}$

$E := \frac{bj}{fg} \qquad E = 1.236245$

Definitions.

$$E - \frac{\sqrt{[C \cdot D \cdot (A - B) - A \cdot B \cdot (2 \cdot C - D)] \cdot [2 \cdot A \cdot B \cdot C - 3 \cdot D \cdot (A \cdot B + A \cdot C - B \cdot C)]} + A \cdot D \cdot (B + C) - B \cdot C \cdot D}{2 \cdot [C \cdot D \cdot (A - B) - A \cdot B \cdot (C - D)]} = 0$$

$$E - \frac{n_2 - n_1 + n_3 + \sqrt{(n_2 - n_1 + n_3 - 2 \cdot n_4) \cdot (3 \cdot n_1 - 3 \cdot n_2 - 3 \cdot n_3 + 2 \cdot n_4)}}{2 \cdot (n_2 - n_1 + n_3 - n_4)} = 0$$

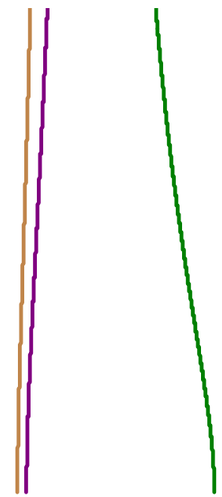


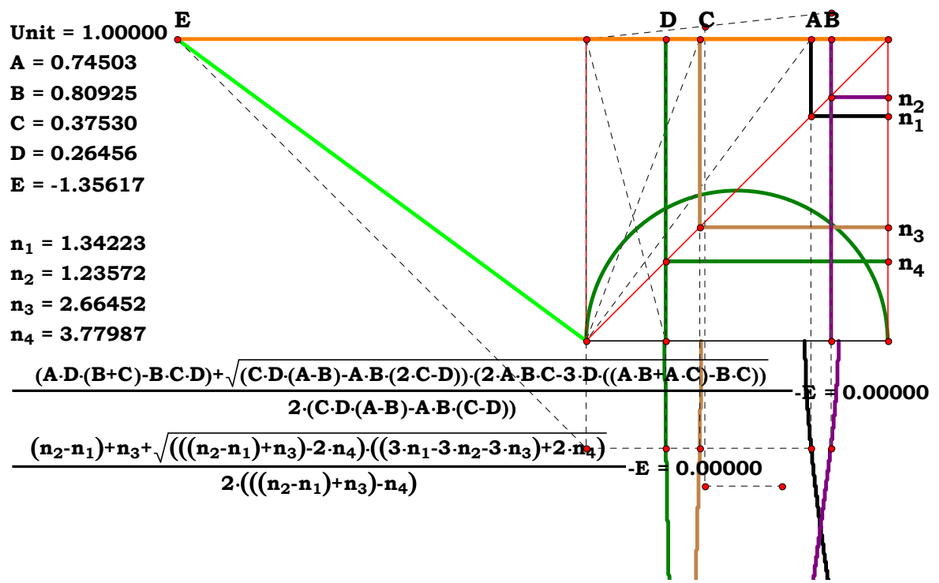
Unit = 1.00000
A = 0.72831
B = 0.44560
C = 0.37112
D = 0.54879
E = 1.23630

n_1 = 1.37304
n_2 = 2.24416
n_3 = 2.69453
n_4 = 1.82220

$$\frac{(A \cdot D \cdot (B+C) - B \cdot C \cdot D) + \sqrt{(C \cdot D \cdot (A-B) - A \cdot B \cdot (2 \cdot C - D)) \cdot (2 \cdot A \cdot B \cdot C - 3 \cdot D \cdot ((A \cdot B + A \cdot C) - B \cdot C))}}{2 \cdot (C \cdot D \cdot (A-B) - A \cdot B \cdot (C-D))} - E = 0.00000$$

$$\frac{(n_2 - n_1) + n_3 + \sqrt{(((n_2 - n_1) + n_3) - 2 \cdot n_4) \cdot ((3 \cdot n_1 - 3 \cdot n_2 - 3 \cdot n_3) + 2 \cdot n_4)}}{2 \cdot (((n_2 - n_1) + n_3) - n_4)} - E = 0.00000$$





Unit = 1.00000
A = 0.74503
B = 0.80925
C = 0.37530
D = 0.26456
E = -1.35617

n_1 = 1.34223
n_2 = 1.23572
n_3 = 2.66452
n_4 = 3.77987

$$\frac{(A \cdot D \cdot (B+C) - B \cdot C \cdot D) + \sqrt{(C \cdot D \cdot (A-B) - A \cdot B \cdot (2 \cdot C - D)) \cdot (2 \cdot A \cdot B \cdot C - 3 \cdot D \cdot ((A \cdot B + A \cdot C) - B \cdot C))}}{2 \cdot (C \cdot D \cdot (A-B) - A \cdot B \cdot (C-D))} - E = 0.00000$$

$$\frac{(n_2 - n_1) + n_3 + \sqrt{(((n_2 - n_1) + n_3) - 2 \cdot n_4) \cdot ((3 \cdot n_1 - 3 \cdot n_2 - 3 \cdot n_3) + 2 \cdot n_4)}}{2 \cdot (((n_2 - n_1) + n_3) - n_4)} - E = 0.00000$$

3OBT9R0

Given.

$A := .32498$

$n_1 := \frac{1}{A}$

Descriptions.

$bh := A \qquad bo := \frac{1}{2} \qquad do := bo \qquad ah := \sqrt{1 + A^2}$

$ho := bh - bo \qquad eh := \frac{bh \cdot ho}{ah} \qquad eo := \frac{ho}{ah}$

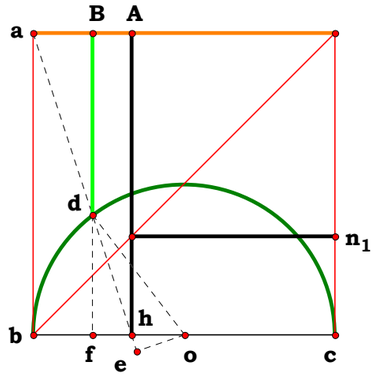
$de := \sqrt{do^2 - eo^2} \qquad dh := eh + de \qquad fh := \frac{bh \cdot dh}{ah}$

$B := bh - fh \qquad B = 0.195979$

Definitions.

$$B - \frac{A^2 + 2 \cdot A - A\left(4 \cdot A - 3 \cdot A^2\right)^{\frac{1}{2}}}{2A^2 + 2} = 0$$

$$B - \frac{2 \cdot n_1 - \sqrt{4 \cdot n_1 - 3} + 1}{2 \cdot \left(n_1^2 + 1\right)} = 0$$

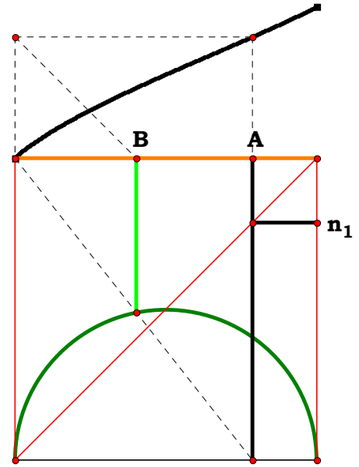


Unit = 1.00000
A = 0.32498
B = 0.19598

n_1 = 3.07709

$\frac{(A^2+2 \cdot A)-A \cdot \sqrt{4 \cdot A-3 \cdot A^2}}{2 \cdot A^2+2}-B = 0.00000$

$\frac{(2 \cdot n_1+1)-\sqrt{4 \cdot n_1-3}}{2 \cdot (n_1{}^2+1)}-B = 0.00000$



Unit = 1.00000
A = 0.78476
B = 0.40027

n_1 = 1.27427

$\frac{(A^2+2 \cdot A)-A \cdot \sqrt{4 \cdot A-3 \cdot A^2}}{2 \cdot A^2+2}-B = 0.00000$

$\frac{(2 \cdot n_1+1)-\sqrt{4 \cdot n_1-3}}{2 \cdot (n_1{}^2+1)}-B = 0.00000$

3OBT9R1

Given.

$A := .71371$

$n_1 := \frac{1}{A}$

Descriptions.

$bh := A \qquad bo := \frac{1}{2}$

$do := bo \qquad ah := \sqrt{1 + A^2}$

$ho := bh - bo \qquad eh := \frac{bh \cdot ho}{ah}$

$eo := \frac{ho}{ah} \qquad de := \sqrt{do^2 - eo^2}$

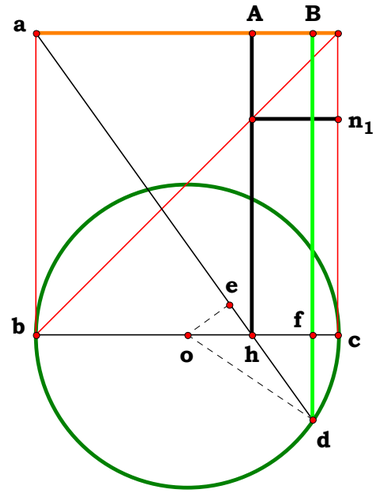
$dh := eh - de \qquad fh := \frac{bh \cdot dh}{ah}$

$B := bh - fh \qquad B = 0.913907$

Definitions.

$$B - \frac{A^2 + 2 \cdot A + A\left(4 \cdot A - 3 \cdot A^2\right)^{\frac{1}{2}}}{2A^2 + 2} = 0$$

$$B - \frac{2 \cdot n_1 + \sqrt{4 \cdot n_1 - 3} + 1}{2 \cdot \left(n_1{}^2 + 1\right)} = 0$$

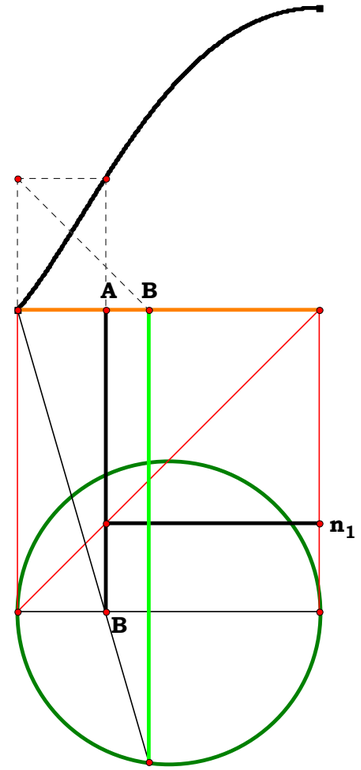


Unit = 1.00000
A = 0.71371
B = 0.91390

$n_1 = 1.40114$

$\frac{A^2+2 \cdot A+A \cdot \sqrt{4 \cdot A-3 \cdot A^2}}{2 \cdot A^2+2}$ -B = 0.00000

$\frac{2 \cdot n_1+1+\sqrt{4 \cdot n_1-3}}{2 \cdot \left(n_1{}^2+1\right)}$ -B = 0.00000



Unit = 1.00000
A = 0.29154
B = 0.43612

$n_1 = 3.43002$

$\frac{A^2+2 \cdot A+A \cdot \sqrt{4 \cdot A-3 \cdot A^2}}{2 \cdot A^2+2}$ -B = 0.00000

$\frac{2 \cdot n_1+1+\sqrt{4 \cdot n_1-3}}{2 \cdot \left(n_1{}^2+1\right)}$ -B = 0.00000

3OBT9R2

Given.

$A := .34170$

$n_1 := \frac{1}{A}$

Descriptions.

$be := \frac{A^2 + 2 \cdot A - A\left(4 \cdot A - 3 \cdot A^2\right)^{\frac{1}{2}}}{2 \cdot A^2 + 2}$

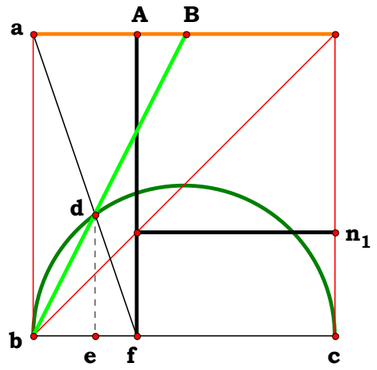
$ce := 1 - be \qquad de := \sqrt{be \cdot ce}$

$B := \frac{be}{de} \qquad B = 0.506249$

Definitions.

$B - \frac{A^2 + 2 \cdot A - A \cdot \sqrt{4 \cdot A - 3 \cdot A^2}}{2 \cdot A^2 - A + \sqrt{4 \cdot A - 3 \cdot A^2}} = 0$

$B - \frac{2 \cdot n_1 - \sqrt{4 \cdot n_1 - 3} + 1}{n_1 \cdot \sqrt{4 \cdot n_1 - 3} - n_1 + 2} = 0$



Unit = 1.00000
A = 0.34170
B = 0.50625

$n_1 = 2.92653$

$\frac{(A^2+2 \cdot A)-A \cdot \sqrt{4 \cdot A-3 \cdot A^2}}{(2 \cdot A^2-A)+\sqrt{4 \cdot A-3 \cdot A^2}} - B = 0.00000$

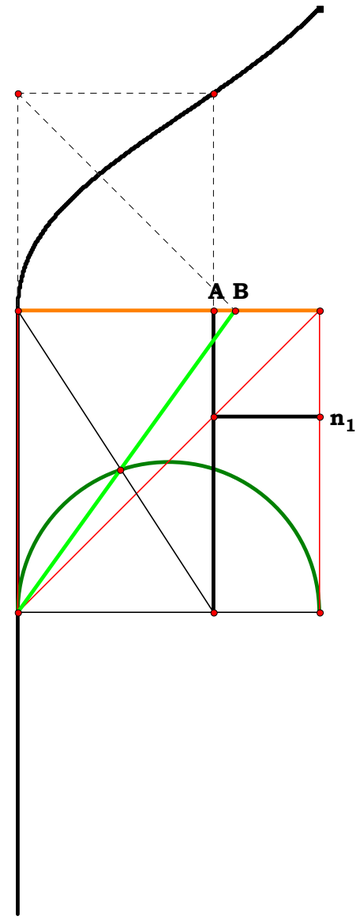
$\frac{(2 \cdot n_1+1)-\sqrt{4 \cdot n_1-3}}{(2-n_1)+n_1 \cdot \sqrt{4 \cdot n_1-3}} - B = 0.00000$

Unit = 1.00000
A = 0.64683
B = 0.71829

$n_1 = 1.54600$

$\frac{(A^2+2 \cdot A)-A \cdot \sqrt{4 \cdot A-3 \cdot A^2}}{(2 \cdot A^2-A)+\sqrt{4 \cdot A-3 \cdot A^2}} - B = 0.00000$

$\frac{(2 \cdot n_1+1)-\sqrt{4 \cdot n_1-3}}{(2-n_1)+n_1 \cdot \sqrt{4 \cdot n_1-3}} - B = 0.00000$



3OBT9R3

Given.

$A := .28736$

$n_1 := \frac{1}{A}$

Descriptions.

$be := \frac{A^2 + 2A + A\left(4 \cdot A - 3 \cdot A^2\right)^{\frac{1}{2}}}{2A^2 + 2}$

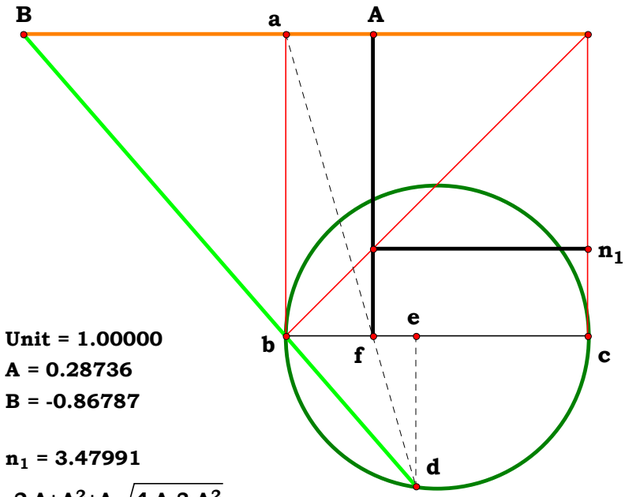
$ce := 1 - be$ $\quad de := \frac{A - be}{\sqrt{(A - be)^2}} \cdot \sqrt{be \cdot ce}$

$B := \frac{be}{de}$ $\quad B = -0.867861$

Definitions.

$B - \frac{2 \cdot A + A^2 + A \cdot \sqrt{4 \cdot A - 3 \cdot A^2}}{2 \cdot A^2 - A - \sqrt{4 \cdot A - 3 \cdot A^2}} = 0$

$B - -\frac{2 \cdot n_1 + \sqrt{4 \cdot n_1 - 3} + 1}{n_1 + n_1 \cdot \sqrt{4 \cdot n_1 - 3} - 2} = 0$

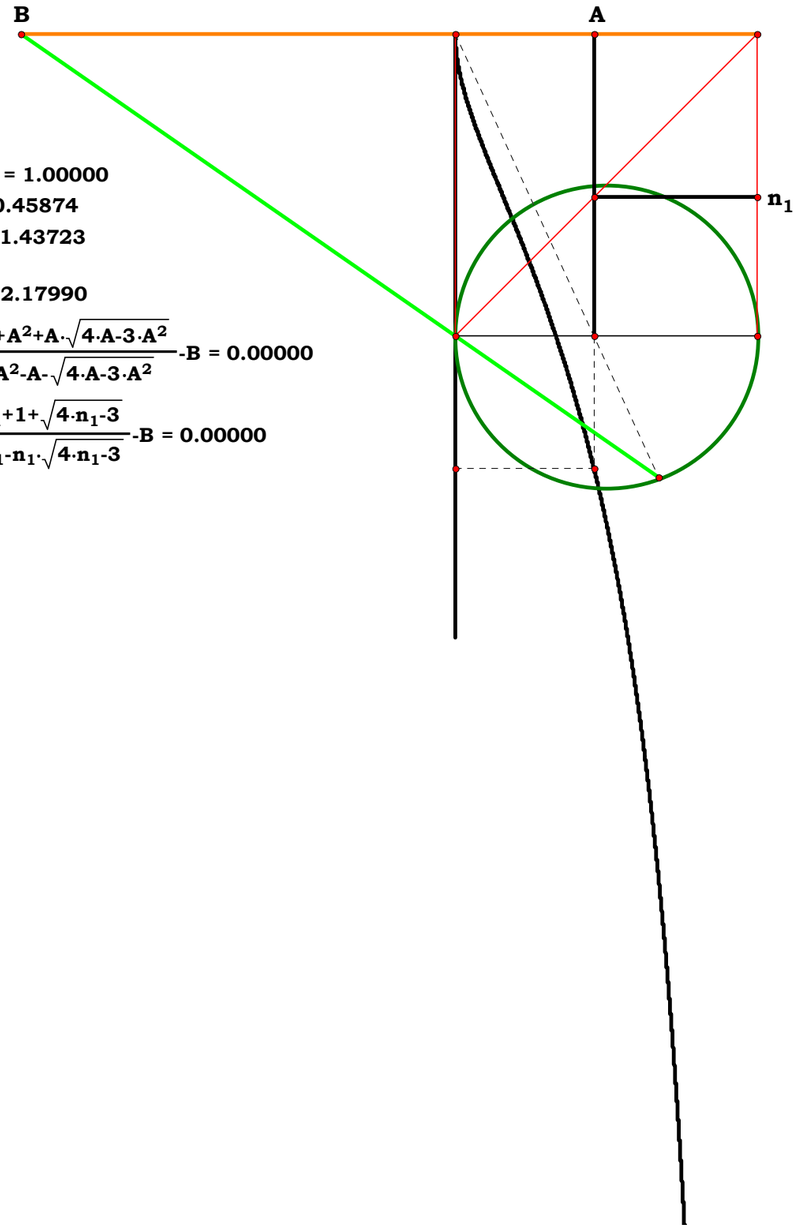


Unit = 1.00000
A = 0.28736
B = -0.86787

$n_1 = 3.47991$

$\frac{2 \cdot A + A^2 + A \cdot \sqrt{4 \cdot A - 3 \cdot A^2}}{2 \cdot A^2 - A - \sqrt{4 \cdot A - 3 \cdot A^2}} - B = 0.00000$

$\frac{2 \cdot n_1 + 1 + \sqrt{4 \cdot n_1 - 3}}{2 - n_1 - n_1 \cdot \sqrt{4 \cdot n_1 - 3}} - B = 0.00000$



Unit = 1.00000
A = 0.45874
B = -1.43723

$n_1 = 2.17990$

$\frac{2 \cdot A + A^2 + A \cdot \sqrt{4 \cdot A - 3 \cdot A^2}}{2 \cdot A^2 - A - \sqrt{4 \cdot A - 3 \cdot A^2}} - B = 0.00000$

$\frac{2 \cdot n_1 + 1 + \sqrt{4 \cdot n_1 - 3}}{2 - n_1 - n_1 \cdot \sqrt{4 \cdot n_1 - 3}} - B = 0.00000$

3OBT9R4

Given.

$A := .33752$

$n_1 := \frac{1}{A}$

Descriptions.

$be := A \qquad ce := 1 - be$

$de := \sqrt{be \cdot ce} \qquad B := \frac{be}{de}$

$B = 0.713778$

Definitions.

$$B - \frac{A}{\left(A - A^2\right)^{\frac{1}{2}}} = 0$$

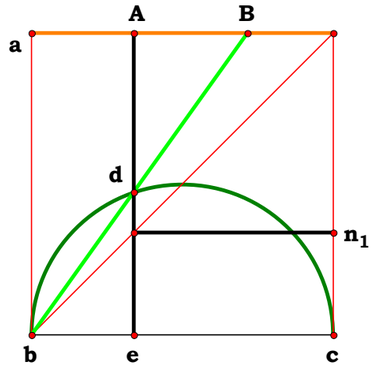
$$B - \left(n_1 - 1\right)^{\frac{-1}{2}} = 0$$

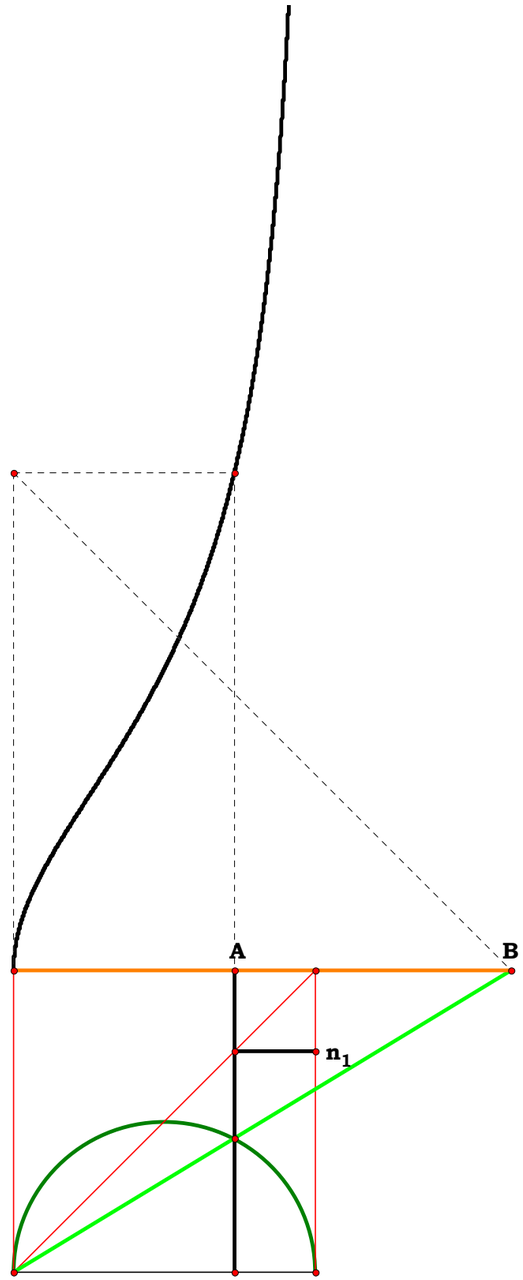
Unit = 1.00000
A = 0.33752
B = 0.71378

$n_1 = 2.96277$

$\frac{A}{\sqrt{A\text{-}A^2}}\text{-}B = 0.00000$

$\frac{1}{\sqrt{n_1\text{-}1}}\text{-}B = 0.00000$





Unit = 1.00000
A = 0.73043
B = 1.64607

$n_1 = 1.36906$

$\frac{A}{\sqrt{A\text{-}A^2}}\text{-}B = 0.00000$

$\frac{1}{\sqrt{n_1\text{-}1}}\text{-}B = 0.00000$

3OBT9R5

Given.

$A := .60503$

$n_1 := \frac{1}{A}$

Descriptions.

$be := A \qquad ce := 1 - be$

$de := \sqrt{be \cdot ce}$

$dn := 1 - de \qquad B := \frac{A}{dn}$

$B = 1.183651$

Definitions.

$$B - \frac{A}{1 - \left(A - A^2\right)^{\frac{1}{2}}} = 0$$

$$B - \frac{1}{n_1 - \sqrt{n_1 - 1}} = 0$$

Unit = 1.00000

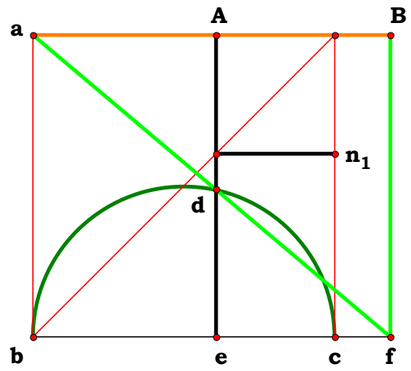
A = 0.60503

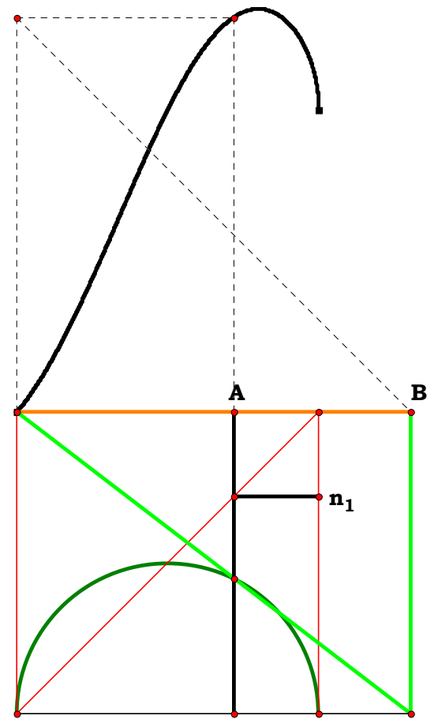
B = 1.18365

n_1 = 1.65281

$\frac{A}{1-\sqrt{A-A^2}}$-B = 0.00000

$\frac{1}{n_1-\sqrt{n_1-1}}$-B = 0.00000





Unit = 1.00000

A = 0.71789

B = 1.30532

n_1 = 1.39298

$\frac{A}{1-\sqrt{A-A^2}}$-B = 0.00000

$\frac{1}{n_1-\sqrt{n_1-1}}$-B = 0.00000

3OBT10AR0

Given.

$A := .86000$

$n_1 := \frac{1}{A}$

Descriptions.

$bg := \frac{A^2}{A^2 + 1}$ $\quad$ $ho := \sqrt{\left(\frac{1}{2}\right)^2 - bg^2}$

$bh := \frac{1}{2} + ho$ $\quad$ $aj := \frac{bg}{bh}$

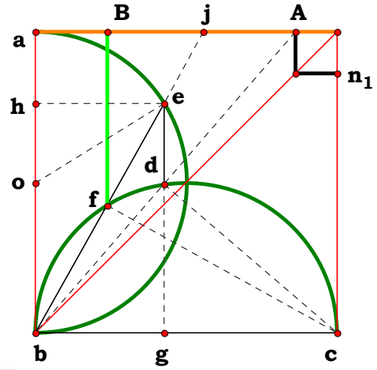
$B := \frac{aj^2}{aj^2 + 1}$ $\quad$ $B = 0.236859$

Definitions.

$B - \frac{A^2 - \sqrt{2 \cdot A^2 - 3 \cdot A^4 + 1} + 1}{2A^2 + 2} = 0$

$B - \frac{1}{n_1} = -0.623141$

$B - \frac{{n_1}^2 - \sqrt{(n_1 - 1) \cdot (n_1 + 1) \cdot ({n_1}^2 + 3)} + 1}{2 \cdot ({n_1}^2 + 1)} = 0$

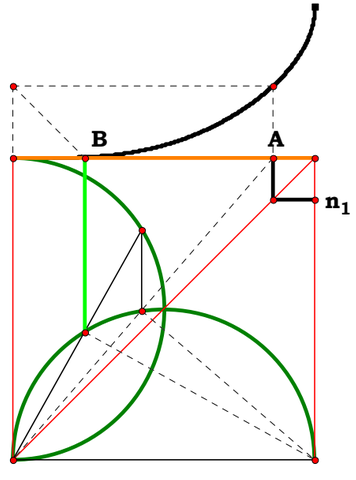


Unit = 1.00000
A = 0.86000
B = 0.23686

$n_1 = 1.16279$

$\frac{(A^2+1)-\sqrt{(2 \cdot A^2-3 \cdot A^4)+1}}{2 \cdot A^2+2} - B = 0.00000$

$\frac{({n_1}^2+1)-\sqrt{(n_1-1) \cdot (n_1+1) \cdot ({n_1}^2+3)}}{2 \cdot ({n_1}^2+1)} - B = 0.00000$



Unit = 1.00000
A = 0.86000
B = 0.23686

$n_1 = 1.16279$

$\frac{(A^2+1)-\sqrt{(2 \cdot A^2-3 \cdot A^4)+1}}{2 \cdot A^2+2} - B = 0.00000$

$\frac{({n_1}^2+1)-\sqrt{(n_1-1) \cdot (n_1+1) \cdot ({n_1}^2+3)}}{2 \cdot ({n_1}^2+1)} - B = 0.00000$

3OBT10AR1

Given.

$A := .85164$

$n_1 := \frac{1}{A}$

Descriptions.

$$R := \frac{2A^2}{A^2 + \left(2 \cdot A^2 - 3 \cdot A^4 + 1\right)^{\frac{1}{2}} + 1}$$

Definitions.

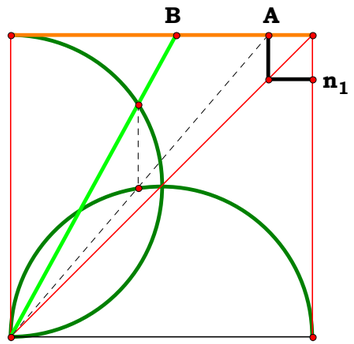
$R = 0.545467$

$$A - \frac{1}{n_1} = 0$$

$$R - \frac{A^2 - \sqrt{2 \cdot A^2 - 3 \cdot A^4 + 1} + 1}{2A^2} = 0$$

$$R - \frac{n_1{}^2 - \sqrt{n_1{}^4 + 2 \cdot n_1{}^2 - 3} + 1}{2} = 0$$

Unit = 1.00000
A = 0.85164
B = 0.54547

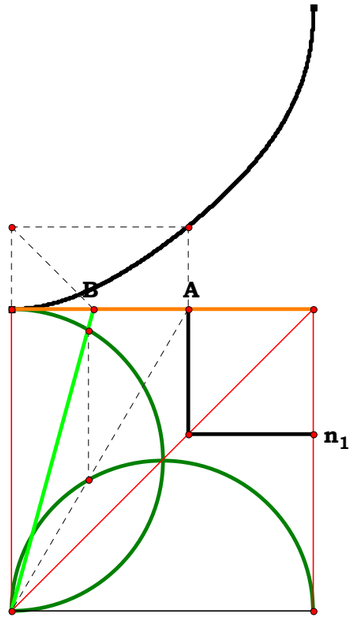


$n_1 = 1.17420$

$\frac{(A^2+1)-\sqrt{(2 \cdot A^2-3 \cdot A^4)+1}}{2 \cdot A^2}-B = 0.00000$

$\frac{(n_1{}^2+1)-\sqrt{(n_1{}^4+2 \cdot n_1{}^2)-3}}{2}-B = 0.00000$

Unit = 1.00000
A = 0.58413
B = 0.27342



$n_1 = 1.71194$

$\frac{(A^2+1)-\sqrt{(2 \cdot A^2-3 \cdot A^4)+1}}{2 \cdot A^2}-B = 0.00000$

$\frac{(n_1{}^2+1)-\sqrt{(n_1{}^4+2 \cdot n_1{}^2)-3}}{2}-B = 0.00000$

3OBT10AR2

Given.

$A := 1.50505$

$n_1 := \frac{1}{A}$

Descriptions.

$eg := \frac{A}{A^2 + 1}$ $\quad bf := eg$

$af := 1 - bf$ $\quad df := \sqrt{bf \cdot af}$

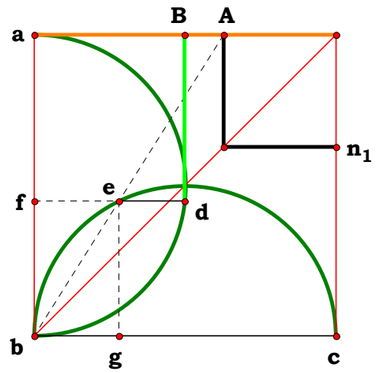
$B := df$ $\quad B = 0.498472$

Definitions.

$$B - \frac{\left(A^3 - A^2 + A\right)^{\frac{1}{2}}}{A^2 + 1} = 0$$

$$B - \frac{\sqrt{n_1 \cdot \left(n_1^2 - n_1 + 1\right)}}{n_1^2 + 1} = 0$$

Unit = 1.00000
A = 0.62593
B = 0.49747

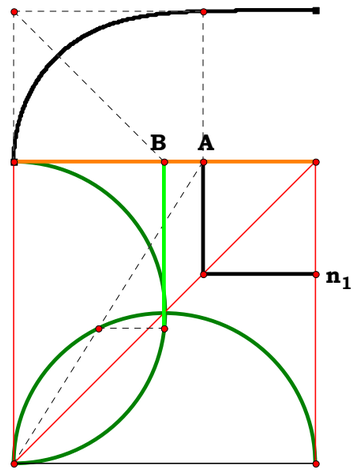


$n_1 = 1.59762$

$\frac{\sqrt{(A^3-A^2)+A}}{A^2+1} - B = 0.00000$

$\frac{\sqrt{(n_1^3-n_1^2)+n_1}}{n_1^2+1} - B = 0.00000$

Unit = 1.00000
A = 0.62593
B = 0.49747



$n_1 = 1.59762$

$\frac{\sqrt{(A^3-A^2)+A}}{A^2+1} - B = 0.00000$

$\frac{\sqrt{(n_1^3-n_1^2)+n_1}}{n_1^2+1} - B = 0.00000$

3OBT10AR3

Given.

$A := .86000$

$n_1 := \frac{1}{A}$

Descriptions.

$bg := \frac{A^2}{A^2 + 1}$ $\quad fj := bg$

$oj := \sqrt{\left(\frac{1}{2}\right)^2 - fj^2}$ $\quad aj := \frac{1}{2} + oj$

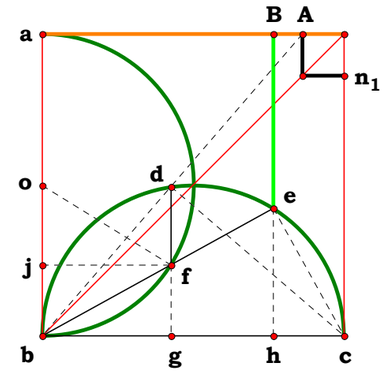
$bh := aj$ $\quad R := bh$

$R = 0.763141$

Definitions.

$$R - \frac{A^2 + \sqrt{2 \cdot A^2 - 3 \cdot A^4 + 1} + 1}{2 \cdot \left(A^2 + 1\right)} = 0$$

$$R - \frac{\sqrt{\left(n_1 - 1\right) \cdot \left(n_1 + 1\right) \cdot \left(n_1{}^2 + 3\right)} + n_1{}^2 + 1}{2 \cdot \left(n_1{}^2 + 1\right)} = 0$$

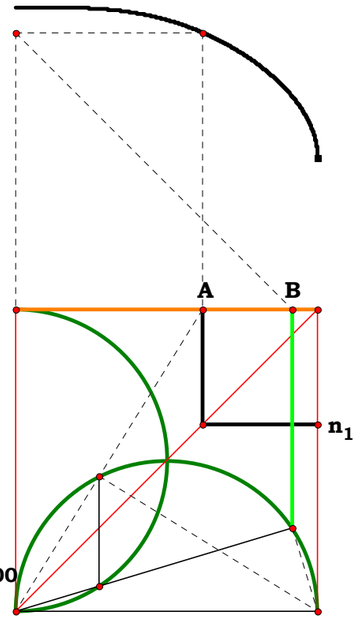


Unit = 1.00000
A = 0.86000
B = 0.76314

$n_1 = 1.16279$

$\frac{A^2+1+\sqrt{(2 \cdot A^2-3 \cdot A^4)+1}}{2 \cdot (A^2+1)} - B = 0.00000$

$\frac{n_1{}^2+1+\sqrt{(n_1-1) \cdot (n_1+1) \cdot (n_1{}^2+3)}}{2 \cdot (n_1{}^2+1)} - B = 0.00000$



Unit = 1.00000
A = 0.61757
B = 0.91686

$n_1 = 1.61925$

$\frac{A^2+1+\sqrt{(2 \cdot A^2-3 \cdot A^4)+1}}{2 \cdot (A^2+1)} - B = 0.00000$

$\frac{n_1{}^2+1+\sqrt{(n_1-1) \cdot (n_1+1) \cdot (n_1{}^2+3)}}{2 \cdot (n_1{}^2+1)} - B = 0.00000$

3OBT10AR4

Given.

$A := .56741$

$n_1 := \frac{1}{A}$

Descriptions.

$bA := \sqrt{1 + A^2}$ $\quad bd := \frac{A}{bA}$

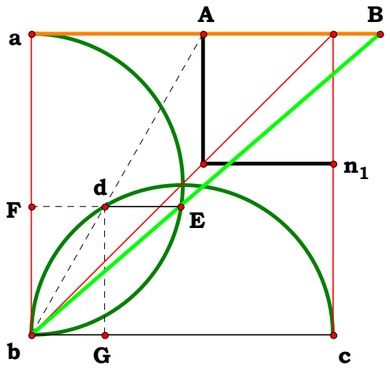
$dg := \frac{bd}{bA}$ $\quad fe := \sqrt{dg \cdot (1 - dg)}$

$B := \frac{fe}{dg}$ $\quad B = 1.153171$

Definitions

$$B - \frac{\sqrt{\left(A^3 - A^2 + A\right)}}{A} = 0$$

$$B - \frac{\sqrt{\left(n_1{}^2 - n_1 + 1\right)}}{\sqrt{n_1}} = 0$$

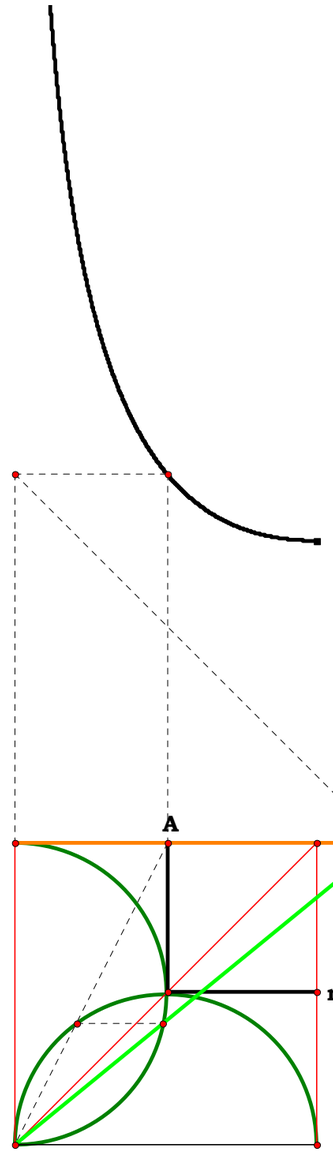


Unit = 1.00000
A = 0.56741
B = 1.15317

$n_1 = 1.76239$

$\frac{\sqrt{(A^3-A^2)+A}}{A} = 1.15317$

$\frac{\sqrt{(n_1{}^2-n_1)+1}}{\sqrt{n_1}} = 1.15317$



Unit = 1.00000
A = 0.50472
B = 1.21903

$n_1 = 1.98132$

$\frac{\sqrt{(A^3-A^2)+A}}{A} = 1.21903$

$\frac{\sqrt{(n_1{}^2-n_1)+1}}{\sqrt{n_1}} = 1.21903$

3OBT10BR3

Given.

$A := 2.19192$

$n_1 := \frac{1}{A}$

Descriptions.

$bf := \frac{A}{A^2 + 1}$ $\quad cf := 1 - bf$

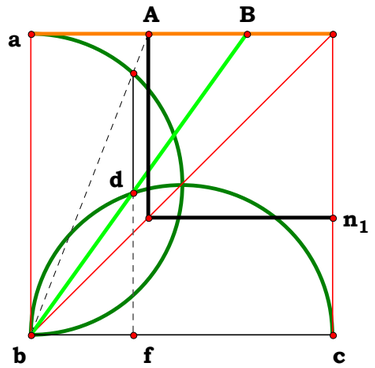
$df := \sqrt{bf \cdot cf}$ $\quad B := \frac{bf}{df}$

$B = 0.778938$

Definitions.

$$B - \frac{A}{\sqrt{A^3 - A^2 + A}} = 0$$

$$B - \frac{\sqrt{n_1}}{\sqrt{n_1^2 - n_1 + 1}} = 0$$

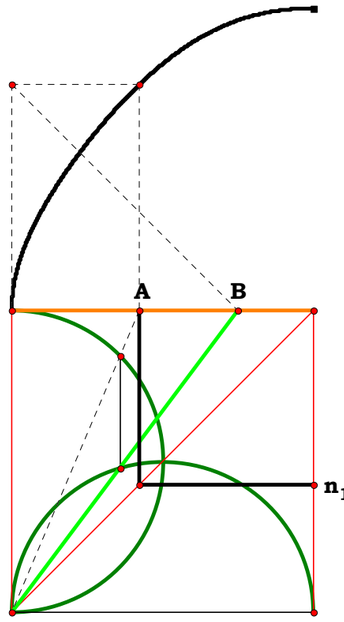


Unit = 1.00000
A = 0.38768
B = 0.71299

$n_1 = 2.57945$

$\frac{A}{\sqrt{(A^3-A^2)+A}}$-B = 0.00000

$\frac{\sqrt{n_1}}{\sqrt{(n_1^2-n_1)+1}}$-B = 0.00000



Unit = 1.00000
A = 0.42112
B = 0.74624

$n_1 = 2.37463$

$\frac{A}{\sqrt{(A^3-A^2)+A}}$-B = 0.00000

$\frac{\sqrt{n_1}}{\sqrt{(n_1^2-n_1)+1}}$-B = 0.00000

3OBT10CR0

Given.

$A := .44620$

$n_1 := \frac{1}{A}$

Descriptions.

$eg := A \qquad go := \sqrt{\left(\frac{1}{2}\right)^2 - eg^2}$

$bg := \frac{1}{2} - go \qquad dh := bg$

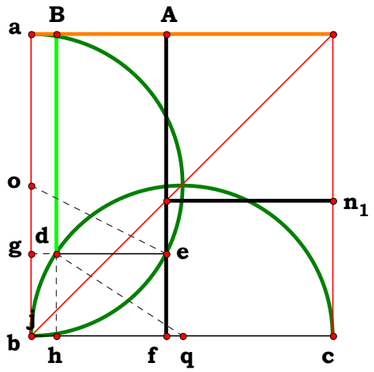
$hq := \sqrt{\left(\frac{1}{2}\right)^2 - dh^2} \qquad bh := \frac{1}{2} - hq$

$B := bh \qquad B = 0.082008$

Definitions.

$$B - \frac{1 - \sqrt{4 \cdot A^2 + 2 \cdot \sqrt{1 - 4 \cdot A^2} - 1}}{2} = 0$$

$$B - \frac{n_1 - \sqrt{2 \cdot n_1 \cdot \sqrt{n_1^2 - 4} - n_1^2 + 4}}{2 \cdot n_1} = 0$$

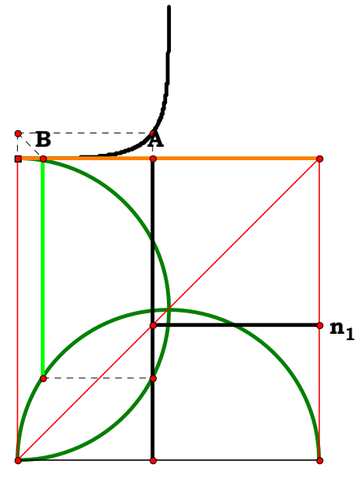


Unit = 1.00000
A = 0.44620
B = 0.08201

$n_1 = 2.24116$

$\frac{1-\sqrt{(4\cdot A^2-1)+2\cdot\sqrt{1-4\cdot A^2}}}{2} - B = 0.00000$

$\frac{n_1-\sqrt{(2\cdot n_1\cdot\sqrt{n_1^2-4}-n_1^2)+4}}{2\cdot n_1} - B = 0.00000$



Unit = 1.00000
A = 0.44620
B = 0.08201

$n_1 = 2.24116$

$\frac{1-\sqrt{(4\cdot A^2-1)+2\cdot\sqrt{1-4\cdot A^2}}}{2} - B = 0.00000$

$\frac{n_1-\sqrt{(2\cdot n_1\cdot\sqrt{n_1^2-4}-n_1^2)+4}}{2\cdot n_1} - B = 0.00000$

3OBT10CR1

Given.

$A := .47964$

$n_1 := \frac{1}{A}$

Descriptions.

$df := \frac{1 - \left(1 - 4 \cdot A^2\right)^{\frac{1}{2}}}{2}$

$bf := \frac{1 - \sqrt{4 \cdot A^2 + 2 \cdot \sqrt{1 - 4 \cdot A^2} - 1}}{2}$

$B := \frac{bf}{df}$ $B = 0.422951$

Definitions.

$B - \frac{\sqrt{4 \cdot A^2 + 2 \cdot \sqrt{1 - 4 \cdot A^2} - 1} - 1}{\sqrt{1 - 4 \cdot A^2} - 1} = 0$

$B - \frac{n_1 - \sqrt{2 \cdot n_1 \cdot \sqrt{n_1{}^2 - 4} - n_1{}^2 + 4}}{n_1 - \sqrt{n_1{}^2 - 4}} = 0$

Unit = 1.00000

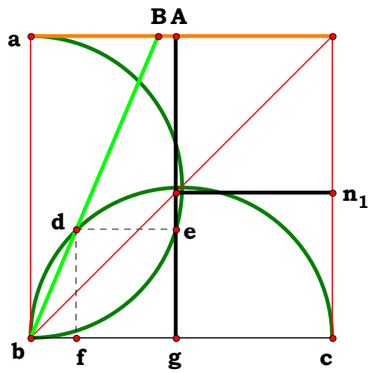
A = 0.47964

B = 0.42293

$n_1 = 2.08491$

$\frac{\sqrt{\left(4 \cdot A^2 + 2 \cdot \sqrt{1-4 \cdot A^2}\right) - 1} - 1}{\sqrt{1-4 \cdot A^2} - 1} - B = 0.00000$

$\frac{n_1 - \sqrt{\left(4 - n_1{}^2\right) + 2 \cdot n_1 \cdot \sqrt{n_1{}^2 - 4}}}{n_1 - \sqrt{n_1{}^2 - 4}} - B = 0.00000$



Unit = 1.00000

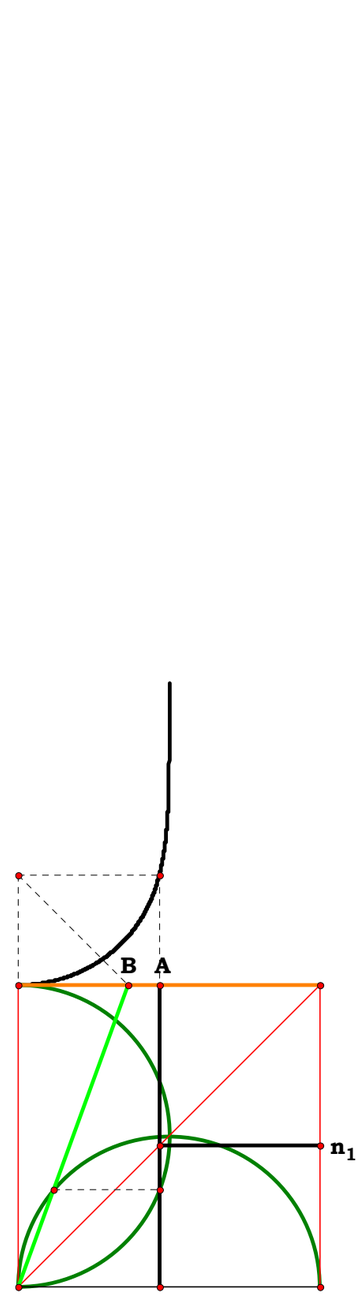
A = 0.46710

B = 0.36430

$n_1 = 2.14088$

$\frac{\sqrt{\left(4 \cdot A^2 + 2 \cdot \sqrt{1-4 \cdot A^2}\right) - 1} - 1}{\sqrt{1-4 \cdot A^2} - 1} - B = 0.00000$

$\frac{n_1 - \sqrt{\left(4 - n_1{}^2\right) + 2 \cdot n_1 \cdot \sqrt{n_1{}^2 - 4}}}{n_1 - \sqrt{n_1{}^2 - 4}} - B = 0.00000$



3OBT10CR2

Given.

$A := .45038$

$n_1 := \frac{1}{A}$

Descriptions.

$go := \frac{\sqrt{4 \cdot A^2 + 2 \cdot \sqrt{1 - 4 \cdot A^2}} - 1}{2}$

$bg := \frac{1}{2} + go \qquad B := bg$

$B = 0.912311$

Definitions.

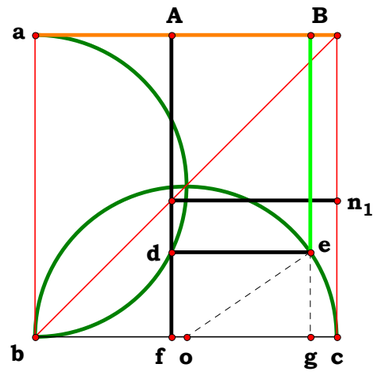
$$B - \frac{1 + \sqrt{4 \cdot A^2 + 2 \cdot \sqrt{1 - 4 \cdot A^2}} - 1}{2} = 0$$

$$B - \frac{n_1 + \sqrt{2 \cdot n_1 \cdot \sqrt{n_1^2 - 4} - n_1^2 + 4}}{2 \cdot n_1} = 0$$

Unit = 1.00000

A = 0.45038

B = 0.91232



$n_1 = 2.22036$

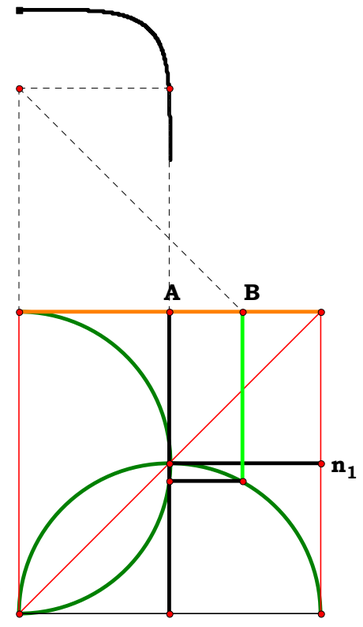
$\frac{1+\sqrt{(4 \cdot A^2-1)+2 \cdot \sqrt{1-4 \cdot A^2}}}{2} - B = 0.00000$

$\frac{n_1+\sqrt{(4-n_1^2)+2 \cdot n_1 \cdot \sqrt{n_1^2-4}}}{2 \cdot n_1} - B = 0.00000$

Unit = 1.00000

A = 0.49636

B = 0.73797



$n_1 = 2.01468$

$\frac{1+\sqrt{(4 \cdot A^2-1)+2 \cdot \sqrt{1-4 \cdot A^2}}}{2} - B = 0.00000$

$\frac{n_1+\sqrt{(4-n_1^2)+2 \cdot n_1 \cdot \sqrt{n_1^2-4}}}{2 \cdot n_1} - B = 0.00000$

3OBT10CR3

Given.

$A := .26646$

$n_1 := \frac{1}{A}$

Descriptions.

$bf := A \qquad cf := 1 - bf$

$ef := \sqrt{bf \cdot cf} \qquad bg := ef$

$ag := 1 - bg \qquad dg := \sqrt{ag \cdot bg}$

$B := \frac{dg}{bg} \qquad B = 1.12334$

Definitions.

$$B - \frac{\sqrt{A^2 - A + \sqrt{A - A^2}}}{\sqrt{A - A^2}} = 0$$

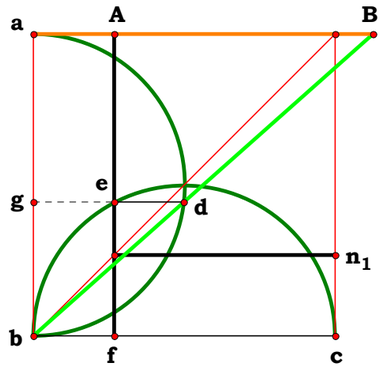
$$B - \frac{\sqrt{n_1 \cdot \sqrt{n_1 - 1} - n_1 + 1}}{\sqrt{n_1 - 1}} = 0$$

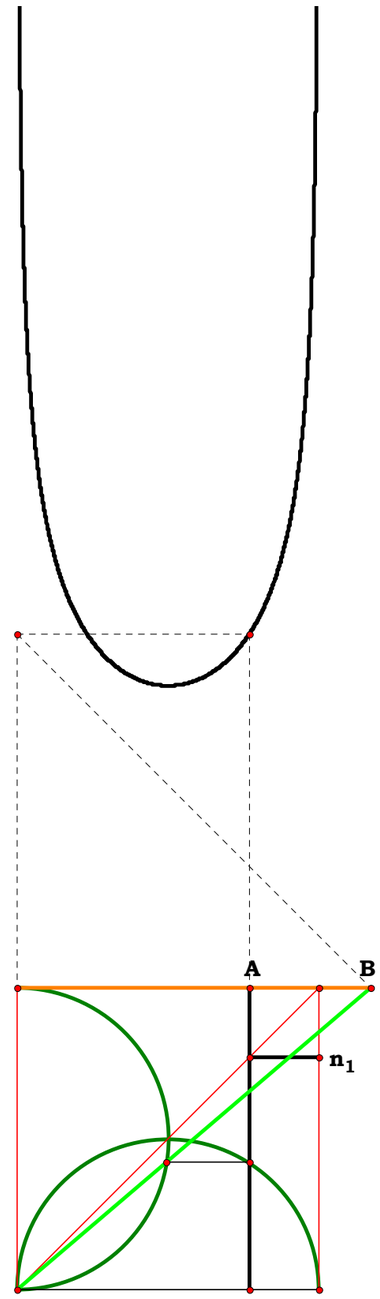
Unit = 1.00000
A = 0.26646
B = 1.12333

n_1 = 3.75284

$\frac{\sqrt{(A^2-A)+\sqrt{A-A^2}}}{\sqrt{A-A^2}}$ -B = 0.00000

$\frac{\sqrt{(1-n_1)+n_1\cdot\sqrt{n_1-1}}}{\sqrt{n_1-1}}$ -B = 0.00000





Unit = 1.00000
A = 0.76804
B = 1.17013

n_1 = 1.30201

$\frac{\sqrt{(A^2-A)+\sqrt{A-A^2}}}{\sqrt{A-A^2}}$ -B = 0.00000

$\frac{\sqrt{(1-n_1)+n_1\cdot\sqrt{n_1-1}}}{\sqrt{n_1-1}}$ -B = 0.00000

3OBT10CR4

Given.

$A := .45455$

$n_1 := \frac{1}{A}$

Descriptions.

$ej := \frac{1 - \sqrt{1 - 4 \cdot A^2}}{2}$

$oj := \frac{\sqrt{4 \cdot A^2 + 2 \cdot \sqrt{1 - 4 \cdot A^2} - 1}}{2}$

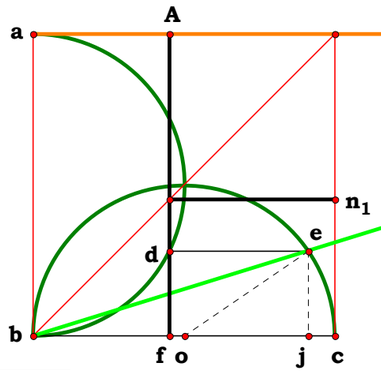
$bj := \frac{1}{2} + oj \qquad B := \frac{bj}{ej}$

$B = 3.106103$

Definitions.

$B - \frac{1 + \sqrt{4 \cdot A^2 + 2 \cdot \sqrt{1 - 4 \cdot A^2} - 1}}{1 - \sqrt{1 - 4 \cdot A^2}} = 0$

$B - \frac{n_1 + \sqrt{2 \cdot n_1 \cdot \sqrt{n_1^2 - 4} - n_1^2 + 4}}{n_1 - \sqrt{n_1^2 - 4}} = 0$

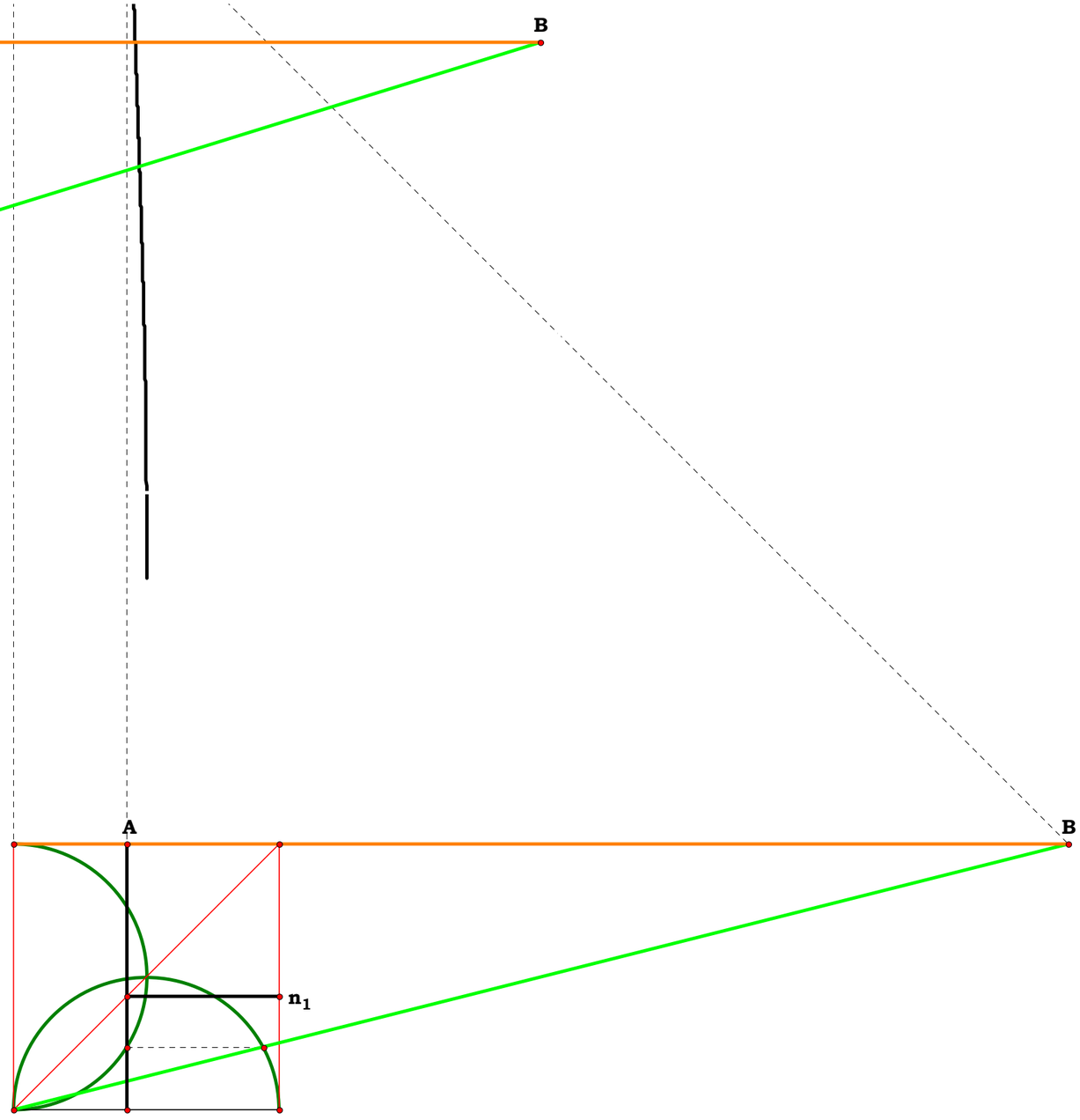


Unit = 1.00000
A = 0.45038
B = 3.22560

$n_1 = 2.22036$

$\frac{1+\sqrt{(4 \cdot A^2-1)+2 \cdot \sqrt{1-4 \cdot A^2}}}{1-\sqrt{1-4 \cdot A^2}} - B = 0.00000$

$\frac{n_1+\sqrt{(4-n_1^2)+2 \cdot n_1 \cdot \sqrt{n_1^2-4}}}{n_1-\sqrt{n_1^2-4}} - B = 0.00000$



Unit = 1.00000
A = 0.42530
B = 3.96563

$n_1 = 2.35129$

$\frac{1+\sqrt{(4 \cdot A^2-1)+2 \cdot \sqrt{1-4 \cdot A^2}}}{1-\sqrt{1-4 \cdot A^2}} - B = 0.00000$

$\frac{n_1+\sqrt{(4-n_1^2)+2 \cdot n_1 \cdot \sqrt{n_1^2-4}}}{n_1-\sqrt{n_1^2-4}} - B = 0.00000$

3OBT11R0

Given.

$A := 1.21212 \qquad B := 1.70707$

$n_1 := \frac{1}{A} \qquad n_2 := \frac{1}{B}$

Descriptions.

$bh := \frac{B \cdot A}{B + A} \qquad gh := \frac{bh}{B}$

$be := \frac{1}{2} - \sqrt{\left(\frac{1}{2}\right)^2 - gh^2} \qquad C := \frac{be}{gh}$

$C = 0.533333$

Definitions.

$$C - \frac{A + B - \sqrt{2 \cdot A \cdot B + B^2 - 3 \cdot A^2}}{2 \cdot A} = 0$$

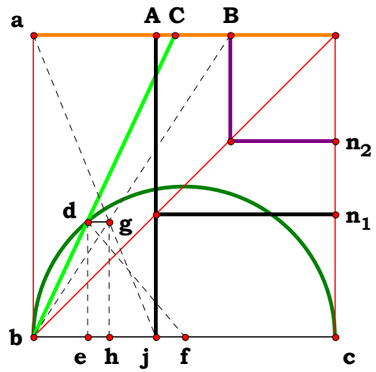
$$C - \frac{n_1 + n_2 - \sqrt{n_1{}^2 + 2 \cdot n_1 \cdot n_2 - 3 \cdot n_2{}^2}}{2 \cdot n_2} = 0$$

Unit = 1.00000
A = 0.40440
B = 0.65041
C = 0.46700

$n_1 = 2.47280$
$n_2 = 1.53749$

$$\frac{(A+B)-\sqrt{(2 \cdot A \cdot B+B^2)-3 \cdot A^2}}{2 \cdot A}-C = 0.00000$$

$$\frac{(n_1+n_2)-\sqrt{(n_1{}^2+2 \cdot n_1 \cdot n_2)-3 \cdot n_2{}^2}}{2 \cdot n_2}-C = 0.00000$$

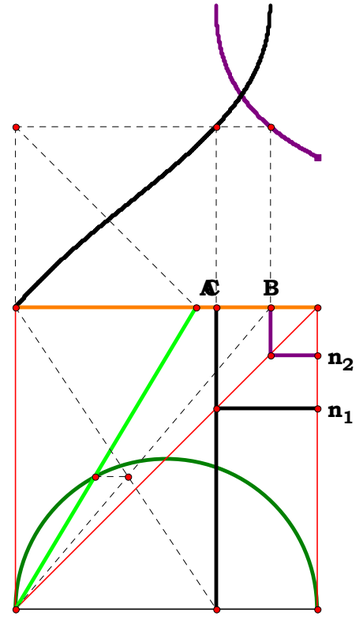


Unit = 1.00000
A = 0.66355
B = 0.84268
C = 0.59815

$n_1 = 1.50705$
$n_2 = 1.18668$

$$\frac{(A+B)-\sqrt{(2 \cdot A \cdot B+B^2)-3 \cdot A^2}}{2 \cdot A}-C = 0.00000$$

$$\frac{(n_1+n_2)-\sqrt{(n_1{}^2+2 \cdot n_1 \cdot n_2)-3 \cdot n_2{}^2}}{2 \cdot n_2}-C = 0.00000$$



3OBT11R1

Given.

$A := .86836 \qquad B := .35782$

$n_1 := \frac{1}{A} \qquad n_2 := \frac{1}{B}$

Descriptions.

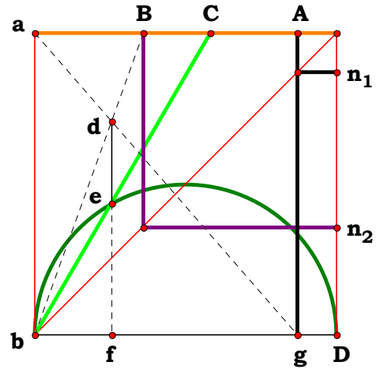
$bf := \frac{B \cdot A}{B + A} \qquad ef := \sqrt{bf \cdot (1 - bf)}$

$C := \frac{bf}{ef} \qquad C = 0.582588$

Definitions.

$$C - \frac{A \cdot B}{\sqrt{A \cdot B \cdot (A + B - A \cdot B)}} = 0$$

$$C - \left(n_1 + n_2 - 1\right)^{\frac{-1}{2}} = 0$$

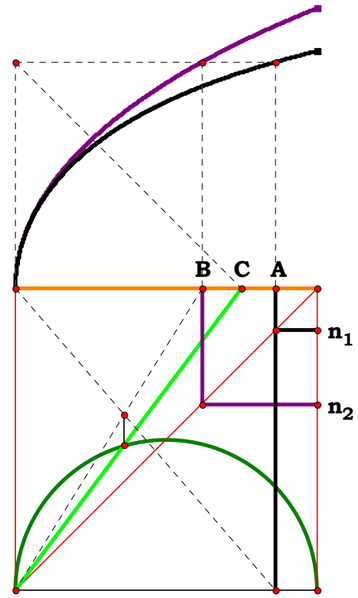


Unit = 1.00000
A = 0.86836
B = 0.35782
C = 0.58259

n_1 = 1.15160
n_2 = 2.79467

$\frac{A \cdot B}{\sqrt{A \cdot B \cdot ((A+B)-A \cdot B)}} - C = 0.00000$

$\frac{1}{\sqrt{(n_1+n_2)-1}} - C = 0.00000$



Unit = 1.00000
A = 0.86000
B = 0.61697
C = 0.74877

n_1 = 1.16279
n_2 = 1.62081

$\frac{A \cdot B}{\sqrt{A \cdot B \cdot ((A+B)-A \cdot B)}} - C = 0.00000$

$\frac{1}{\sqrt{(n_1+n_2)-1}} - C = 0.00000$

3OBT11R2

Given.

$A := .75133 \qquad B := .63369$

$C := .38366$

$n_1 := \frac{1}{A} \qquad n_2 := \frac{1}{B} \qquad n_3 := \frac{1}{C}$

Descriptions.

$bh := \frac{B \cdot A}{B + A} \qquad gh := \frac{bh}{B}$

$bf := C - C \cdot gh \qquad ef := \sqrt{bf \cdot (1 - bf)}$

$D := \frac{bf}{ef} \qquad D = 0.461422$

Definitions.

$$D - \frac{B \cdot C}{\sqrt{B \cdot C \cdot (A + B - B \cdot C)}} = 0$$

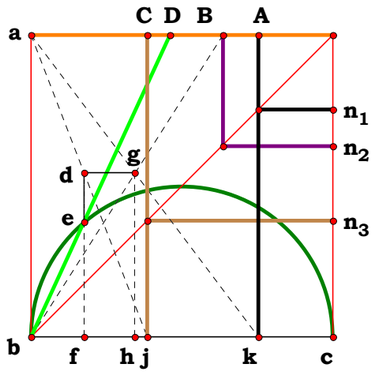
$$D - \frac{\sqrt{n_1}}{\sqrt{n_1 \cdot n_3 - n_1 + n_2 \cdot n_3}} = 0$$

Unit = 1.00000
A = 0.75133
B = 0.63369
C = 0.38366
D = 0.46142

n_1 = 1.33098
n_2 = 1.57805
n_3 = 2.60646

$$\frac{B \cdot C}{\sqrt{B \cdot C \cdot ((A+B) - B \cdot C)}} - D = 0.00000$$

$$\frac{\sqrt{n_1}}{\sqrt{(n_1 \cdot n_3 - n_1) + n_2 \cdot n_3}} - D = 0.00000$$

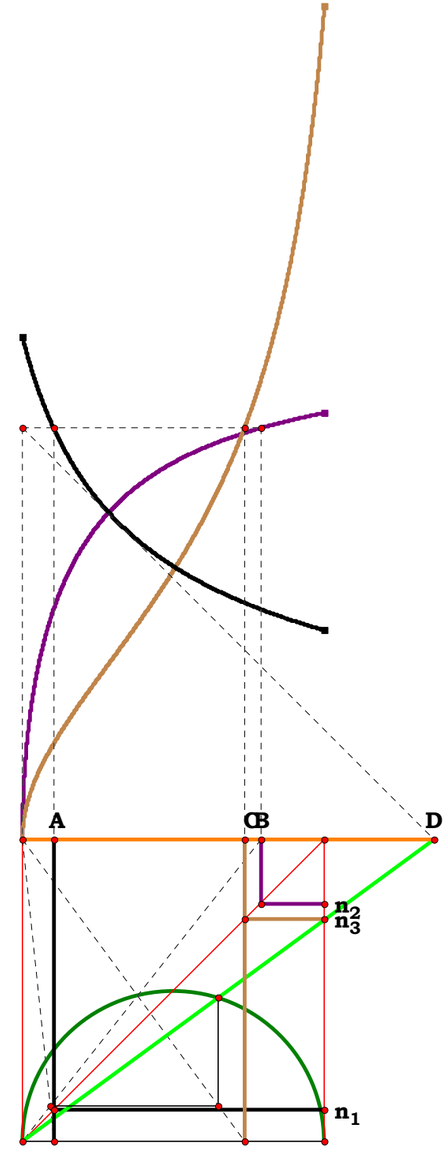


Unit = 1.00000
A = 0.10345
B = 0.78835
C = 0.73477
D = 1.36137

n_1 = 9.66638
n_2 = 1.26848
n_3 = 1.36098

$$\frac{B \cdot C}{\sqrt{B \cdot C \cdot ((A+B) - B \cdot C)}} - D = 0.00000$$

$$\frac{\sqrt{n_1}}{\sqrt{(n_1 \cdot n_3 - n_1) + n_2 \cdot n_3}} - D = 0.00000$$



3OBT11R3

Given.

$A := .64683 \qquad B := .82597$

$n_1 := \frac{1}{A} \qquad n_2 := \frac{1}{B}$

Descriptions.

$be := \frac{B \cdot A}{B + A} \qquad de := \frac{be}{B}$

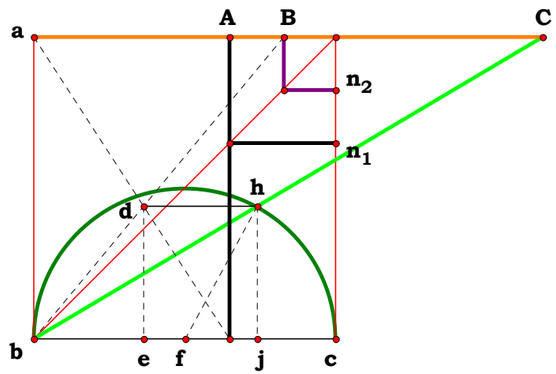
$jc := \frac{1}{2} - \sqrt{\left(\frac{1}{2}\right)^2 - de^2} \qquad bj := 1 - jc$

$C := \frac{bj}{de} \qquad C = 1.68265$

Definitions.

$$C - \frac{A + B + \sqrt{2 \cdot A \cdot B - 3 \cdot A^2 + B^2}}{2 \cdot A} = 0$$

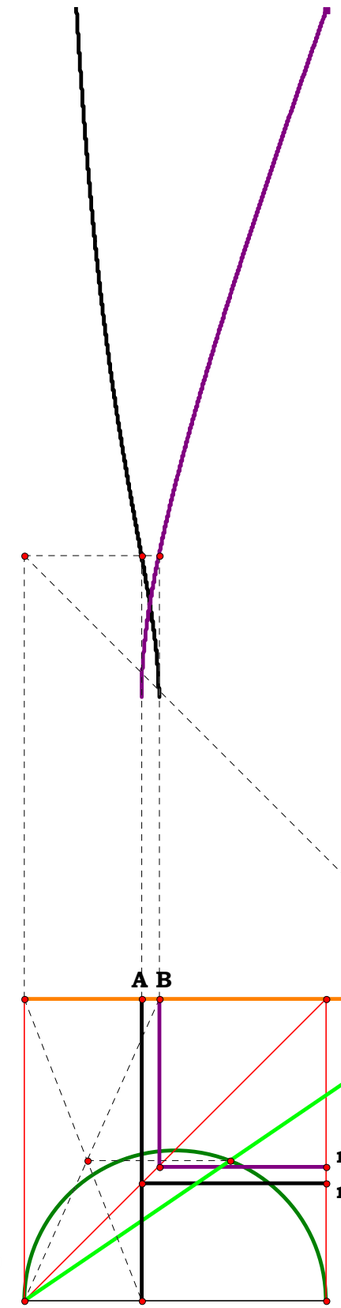
$$C - \frac{n_1 + n_2 + \sqrt{n_1^2 + 2 \cdot n_1 \cdot n_2 - 3 \cdot n_2^2}}{2 \cdot n_2} = 0$$

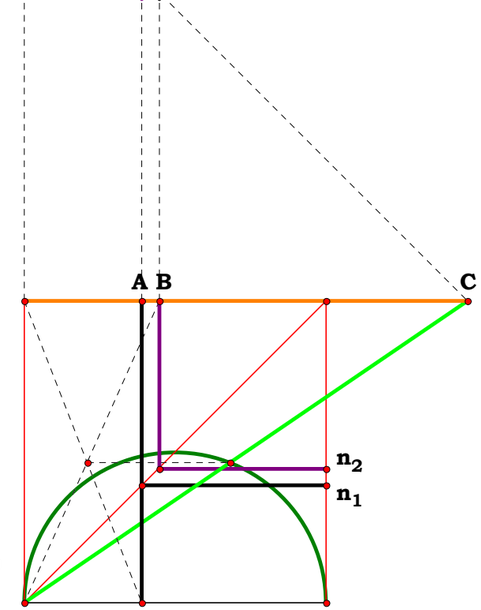


Unit = 1.00000
A = 0.64683
B = 0.82597
C = 1.68264
n_1 = 1.54600
n_2 = 1.21070

$\frac{A+B+\sqrt{(2\cdot A\cdot B-3\cdot A^2)+B^2}}{2\cdot A}$ -C = 0.00000

$\frac{n_1+n_2+\sqrt{(n_1{}^2+2\cdot n_1\cdot n_2)-3\cdot n_2{}^2}}{2\cdot n_2}$ -C = 0.00000





Unit = 1.00000
A = 0.38768
B = 0.44560
C = 1.46838
n_1 = 2.57945
n_2 = 2.24416

$\frac{A+B+\sqrt{(2\cdot A\cdot B-3\cdot A^2)+B^2}}{2\cdot A}$ -C = 0.00000

$\frac{n_1+n_2+\sqrt{(n_1{}^2+2\cdot n_1\cdot n_2)-3\cdot n_2{}^2}}{2\cdot n_2}$ -C = 0.00000

3OBT11R4

Given.

$A := .54651 \qquad B := .66713$

$n_1 := \frac{1}{A} \qquad n_2 := \frac{1}{B}$

Descriptions.

$be := \frac{A \cdot B}{A + B} \qquad de := \frac{be}{B}$

$bh := 1 - \left[\frac{1}{2} - \sqrt{\left(\frac{1}{2}\right)^2 - de^2}\right] \qquad C := \frac{bh}{1 - de}$

$C = 1.304929$

Definitions.

$C - \frac{A + B + \sqrt{2 \cdot A \cdot B - 3 \cdot A^2 + B^2}}{2 \cdot B} = 0$

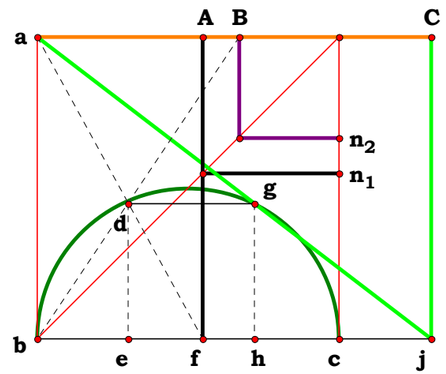
$C - \frac{n_1 + n_2 + \sqrt{n_1^2 + 2 \cdot n_1 \cdot n_2 - 3 \cdot n_2^2}}{2 \cdot n_1} = 0$

Unit = 1.00000
A = 0.54651
B = 0.66713
C = 1.30493

n_1 = 1.82978
n_2 = 1.49895

$\frac{A+B+\sqrt{(2 \cdot A \cdot B - 3 \cdot A^2)+B^2}}{2 \cdot B} - C = 0.00000$

$\frac{n_1+n_2+\sqrt{(n_1^2+2 \cdot n_1 \cdot n_2)-3 \cdot n_2^2}}{2 \cdot n_1} - C = 0.00000$

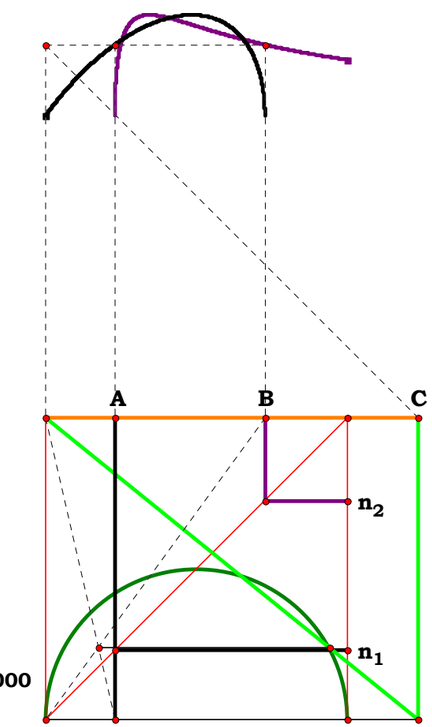


Unit = 1.00000
A = 0.22885
B = 0.72565
C = 1.23482

n_1 = 4.36974
n_2 = 1.37808

$\frac{A+B+\sqrt{(2 \cdot A \cdot B - 3 \cdot A^2)+B^2}}{2 \cdot B} - C = 0.00000$

$\frac{n_1+n_2+\sqrt{(n_1^2+2 \cdot n_1 \cdot n_2)-3 \cdot n_2^2}}{2 \cdot n_1} - C = 0.00000$



3OBT11R5

Given.

$A := .40440 \qquad B := .47068$

$n_1 := \frac{1}{A} \qquad n_2 := \frac{1}{B}$

Descriptions.

$bg := \frac{A \cdot B}{A + B} \qquad fg := \frac{bg}{B}$

$be := \frac{1}{2} - \sqrt{\left(\frac{1}{2}\right)^2 - fg^2} \qquad C := \frac{be}{1 - fg}$

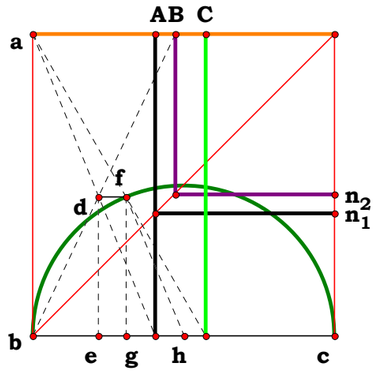
$C = 0.574703$

Definitions.

$$C - \frac{A + B - \sqrt{2 \cdot A \cdot B - 3 \cdot A^2 + B^2}}{2 \cdot B} = 0$$

$$C - \frac{n_1 + n_2 - \sqrt{n_1^2 + 2 \cdot n_1 \cdot n_2 - 3 \cdot n_2^2}}{2 \cdot n_1} = 0$$

Unit = 1.00000
A = 0.40440
B = 0.47068
C = 0.57470

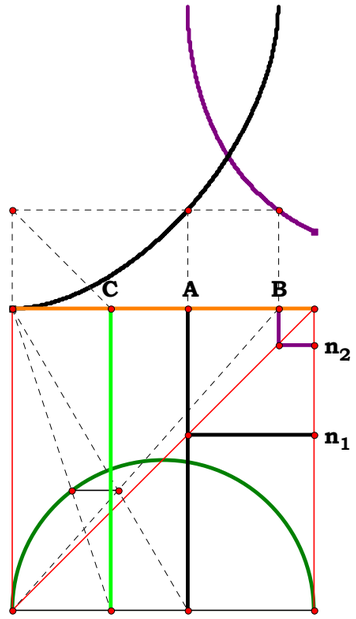


$n_1 = 2.47280$
$n_2 = 2.12459$

$\frac{(A+B)-\sqrt{(2 \cdot A \cdot B-3 \cdot A^2)+B^2}}{2 \cdot B}-C = 0.00000$

$\frac{(n_1+n_2)-\sqrt{(n_1^2+2 \cdot n_1 \cdot n_2)-3 \cdot n_2^2}}{2 \cdot n_1}-C = 0.00000$

Unit = 1.00000
A = 0.57995
B = 0.88030
C = 0.32554



$n_1 = 1.72428$
$n_2 = 1.13597$

$\frac{(A+B)-\sqrt{(2 \cdot A \cdot B-3 \cdot A^2)+B^2}}{2 \cdot B}-C = 0.00000$

$\frac{(n_1+n_2)-\sqrt{(n_1^2+2 \cdot n_1 \cdot n_2)-3 \cdot n_2^2}}{2 \cdot n_1}-C = 0.00000$

3OBT11R6

Given.

$A := .55069 \qquad B := .72565$

$n_1 := \frac{1}{A} \qquad n_2 := \frac{1}{B}$

Descriptions.

$gh := \frac{B - A}{B} \qquad be := \frac{1}{2} - \sqrt{\left(\frac{1}{2}\right)^2 - gh^2}$

$C := \frac{be}{gh} \qquad C = 0.257038$

Definitions.

$$C - \frac{\sqrt{8 \cdot A \cdot B - 4 \cdot A^2 - 3 \cdot B^2} - B}{2 \cdot (A - B)} = 0$$

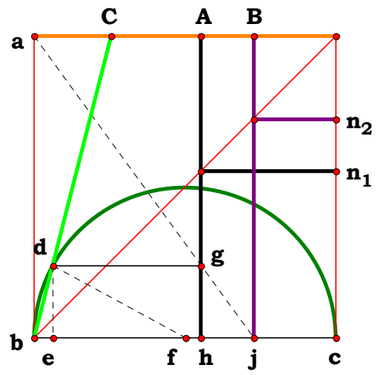
$$C - \frac{n_1 - \sqrt{\left(2 \cdot n_2 - n_1\right) \cdot \left(3 \cdot n_1 - 2 \cdot n_2\right)}}{2 \cdot \left(n_1 - n_2\right)} = 0$$

Unit = 1.00000
A = 0.55069
B = 0.72565
C = 0.25703

n_1 = 1.81589
n_2 = 1.37808

$\frac{\sqrt{8 \cdot A \cdot B - 4 \cdot A^2 - 3 \cdot B^2} - B}{2 \cdot (A - B)} - C = 0.00000$

$\frac{n_1 - \sqrt{(2 \cdot n_2 - n_1) \cdot (3 \cdot n_1 - 2 \cdot n_2)}}{2 \cdot (n_1 - n_2)} - C = 0.00000$

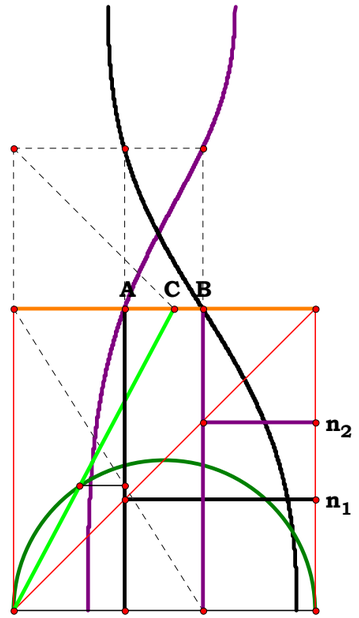


Unit = 1.00000
A = 0.36678
B = 0.62533
C = 0.52930

n_1 = 2.72642
n_2 = 1.59915

$\frac{\sqrt{8 \cdot A \cdot B - 4 \cdot A^2 - 3 \cdot B^2} - B}{2 \cdot (A - B)} - C = 0.00000$

$\frac{n_1 - \sqrt{(2 \cdot n_2 - n_1) \cdot (3 \cdot n_1 - 2 \cdot n_2)}}{2 \cdot (n_1 - n_2)} - C = 0.00000$



3OBT11R7

Given.

$A := .19113 \qquad B := .36618$

$n_1 := \frac{1}{A} \qquad n_2 := \frac{1}{B}$

Descriptions.

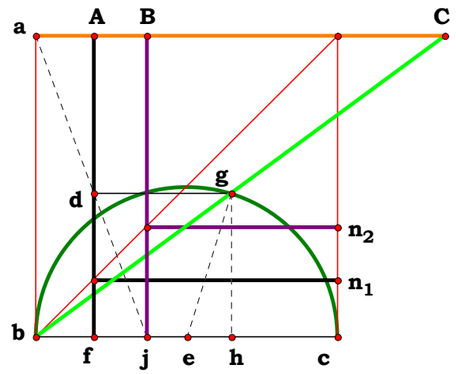
$df := 1 - \frac{A}{B} \qquad bh := 1 - \frac{1}{2} + \sqrt{\left(\frac{1}{2}\right)^2 - df^2}$

$C := \frac{bh}{df} \qquad C = 1.352473$

Definitions.

$$C - \frac{B + \sqrt{(2 \cdot A - 3 \cdot B) \cdot (B - 2 \cdot A)}}{2 \cdot (B - A)} = 0$$

$$C - \frac{n_1 + \sqrt{(2 \cdot n_2 - n_1) \cdot (3 \cdot n_1 - 2 \cdot n_2)}}{2 \cdot (n_1 - n_2)} = 0$$



Unit = 1.00000
A = 0.19113
B = 0.36618
C = 1.35240

n_1 = 5.23207
n_2 = 2.73087

$\frac{B+\sqrt{(2\cdot A-3\cdot B)\cdot(B-2\cdot A)}}{2\cdot(B-A)}-C = 0.00000$

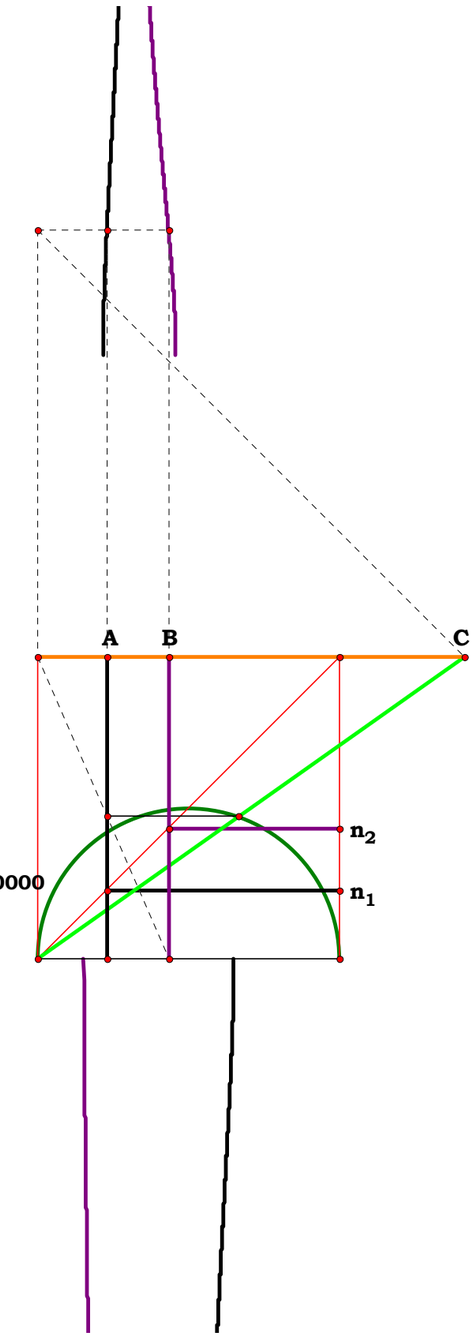
$\frac{n_1+\sqrt{(2\cdot n_2-n_1)\cdot(3\cdot n_1-2\cdot n_2)}}{2\cdot(n_1-n_2)}-C = 0.00000$

Unit = 1.00000
A = 0.22875
B = 0.43306
C = 1.41074

n_1 = 4.37163
n_2 = 2.30914

$\frac{B+\sqrt{(2\cdot A-3\cdot B)\cdot(B-2\cdot A)}}{2\cdot(B-A)}-C = 0.00000$

$\frac{n_1+\sqrt{(2\cdot n_2-n_1)\cdot(3\cdot n_1-2\cdot n_2)}}{2\cdot(n_1-n_2)}-C = 0.00000$



3OBT11R8

Given.

$A := .24557 \qquad B := .52084$

$n_1 := \frac{1}{A} \qquad n_2 := \frac{1}{B}$

Descriptions.

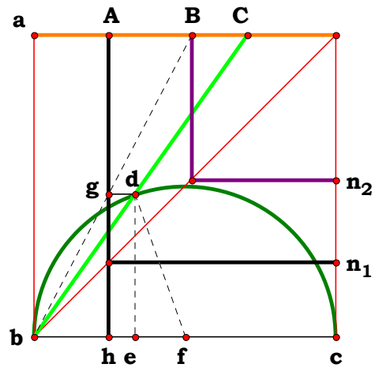
$gh := \frac{A}{B} \qquad be := \frac{1}{2} - \sqrt{\left(\frac{1}{2}\right)^2 - gh^2}$

$C := \frac{be}{gh} \qquad C = 0.707484$

Definitions.

$C - \frac{B - \sqrt{B^2 - 4 \cdot A^2}}{2 \cdot A} = 0$

$C - \frac{n_1 - \sqrt{(n_1 - 2 \cdot n_2) \cdot (n_1 + 2 \cdot n_2)}}{2 \cdot n_2} = 0$

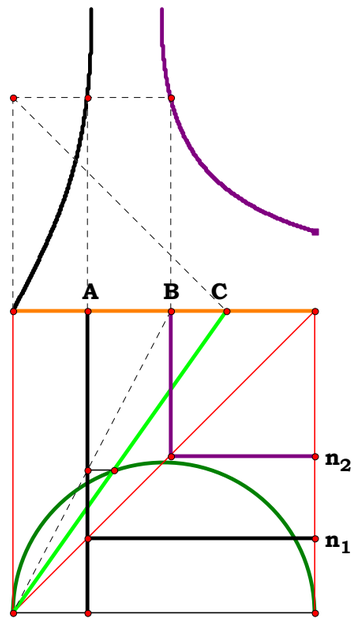


Unit = 1.00000
A = 0.24557
B = 0.52084
C = 0.70746

n_1 = 4.07223
n_2 = 1.91998

$\frac{B-\sqrt{B^2-4\cdot A^2}}{2\cdot A}-C = 0.00000$

$\frac{n_1-\sqrt{(n_1-2\cdot n_2)\cdot(n_1+2\cdot n_2)}}{2\cdot n_2}-C = 0.00000$



Unit = 1.00000
A = 0.24557
B = 0.52084
C = 0.70746

n_1 = 4.07223
n_2 = 1.91998

$\frac{B-\sqrt{B^2-4\cdot A^2}}{2\cdot A}-C = 0.00000$

$\frac{n_1-\sqrt{(n_1-2\cdot n_2)\cdot(n_1+2\cdot n_2)}}{2\cdot n_2}-C = 0.00000$

3OBT11R9

Given.

$A := .35842 \qquad B := .75909$

$n_1 := \frac{1}{A} \qquad n_2 := \frac{1}{B}$

Descriptions.

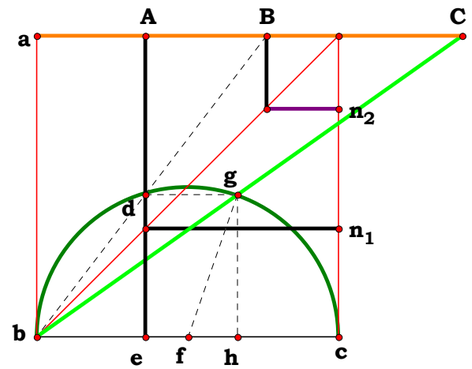
$de := \frac{A}{B} \qquad bh := 1 - \left[\frac{1}{2} - \sqrt{\left(\frac{1}{2}\right)^2 - de^2}\right]$

$C := \frac{bh}{de} \qquad C = 1.407296$

Definitions.

$$C - \frac{B + \sqrt{B^2 - 4 \cdot A^2}}{2 \cdot A} = 0$$

$$C - \frac{n_1 + \sqrt{n_1^2 - 4 \cdot n_2^2}}{2 \cdot n_2} = 0$$

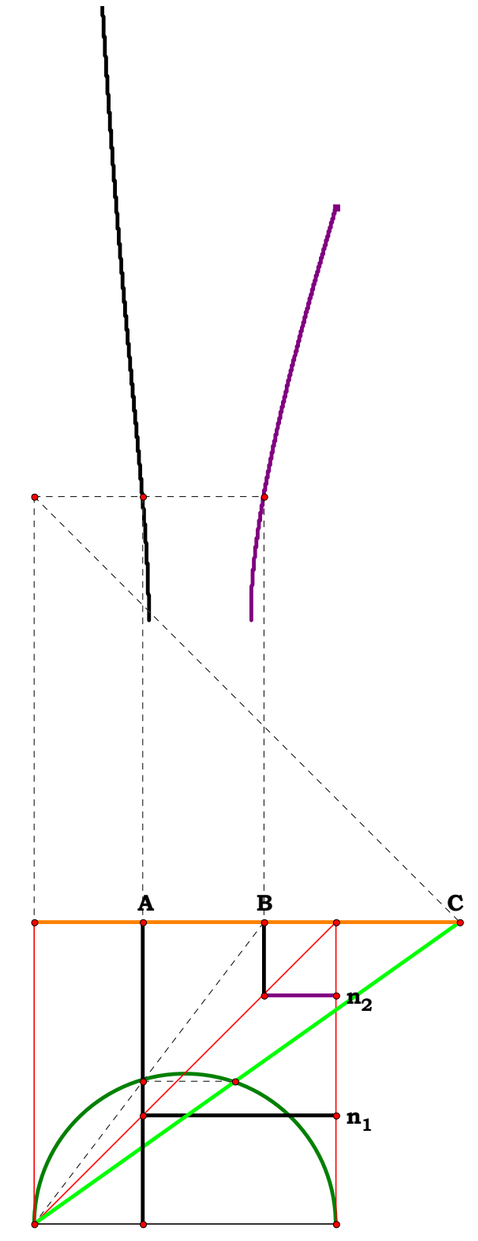


Unit = 1.00000
A = 0.35842
B = 0.75909
C = 1.40727

$n_1 = 2.79001$
$n_2 = 1.31737$

$\frac{B+\sqrt{B^2-4\cdot A^2}}{2\cdot A} - C = 0.00000$

$\frac{n_1+\sqrt{n_1^2-4\cdot n_2^2}}{2\cdot n_2} - C = 0.00000$



Unit = 1.00000
A = 0.35842
B = 0.75909
C = 1.40727

$n_1 = 2.79001$
$n_2 = 1.31737$

$\frac{B+\sqrt{B^2-4\cdot A^2}}{2\cdot A} - C = 0.00000$

$\frac{n_1+\sqrt{n_1^2-4\cdot n_2^2}}{2\cdot n_2} - C = 0.00000$